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This volume contains papers presented at The National Conference on Program Accounting for Public Schools held at The University of California at Los Angeles, in July 1968. The papers describe six public school expenditure classification systems designed to facilitate program budgeting and cost analysis. The account classification systems are those developed by (1) The Midwestern States Educational Information Project, (2) Philadelphia Public Schools, (3) St. Louis Public Schools, (4) Los Angeles City Schools, (5) The California Association of Public School Business Officers, and (6) Erick L. Lindman. In a summary of the conference discussion, 11 issues in the area of program accounting that were identified and discussed at the conference are reviewed. (HW)

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APPROACHES TO PROGRAM ACCOUNTING FOR PUBLIC SCHOOLS

Erick L. Lindman, Editor

Center FOR THE
Study of
Evaluation
OF INSTRUCTIONAL
PROGRAMS

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University of California, Los Angeles, September 1968

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> Instructional Variables - Research in this area will be concerned with identifying and evaluating the effects of instructional variables, and with the development of conceptual models, learning theory and theory of instruction. The research involves the experimental study of the effects of differences in instruction as they may interact with individual differences among students.
>
> Contextual Variables - Research in this area will be concerned with measuring and evaluating differences in community and school environments and the interactions of both with instructional programs. It will also involve evaluating variations in student and teacher characteristics and administrative organization.
>
> Criterion Measures - Research in this field is concerned with creating a new conceptualization of evaluation of instruction and in developing new instruments to evaluate knowledge acquired in school by measuring observable changes in cognitive, affective and physiological behavior. It will also involve evaluating the cost-effectiveness of instructional programs.

APPROACHES TO PROGRAM ACCOUNTING FOR PUBLIC SCHOOLS

Erick L. Lindman, Editor

Based upon presentations and discussions of the National Conference on Program Accounting for Public Schools, University of California, Los Angeles, July 1968. Sponsored by the UCLA Center for the Study of Evaluation of Instructional Programs, in cooperation with the United States Office of Education.

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ABSTRACT

This report contains brief descriptions of public school expenditure classification systems designed to facilitate program budgeting and cost analysis. Included are summaries of account classification systems developed by (1) The Midwestern States Educational Information Project (2) Philadelphia Public Schools (3) St. Louis Public Schools (4) Los Angeles City Schools and (5) The California Association of Public School Business Officers.

In addition to these reports, the final section includes a summary of the discussion concerning each report. Eleven issues are identified and arguments pro and con are reviewed.

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FOREWORD

During recent years, local school systems, state departments of education, the U. S. Office of Education, professional associations, and educational research organizations have been attempting to improve public school planning and budgeting processes. A problem common to all of these efforts is the development of program-oriented expenditure classifications for public schools.

The several groups have been working more or less independently, and as a result many different approaches have been explored. This emphasis during the initial stage had obvious advantages. However, we are now reaching the point where it should be possible to agree upon some common elements that should be included in all public school program accounting systems. Especially important at this time is the identification of commonly accepted program accounting classifications which can be incorporated in the next revision of the accounting manual published by the U. S. Office of Education.

To identify the common elements and to explore different approaches to program accounting were the chief purposes of the National Conference on Program Accounting for Public Schools, July 1968, sponsored by the UCLA Center for the Study of Evaluation of Instructional Programs.

The first part of the conference was devoted to presentations by the principal speakers; the second part, to discussions of major issues. In this report, the formal papers of the speakers appear more or less as they were read to the conference. Informal presentations and the discussions have been summarized and focussed upon central issues of the conference.

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PURPOSE OF THE CONFERENCE

Erick L. Lindman

Along with a cordial welcome to this UCLA sponsored conference on program accounting for public schools, I include our sincere appreciation for your willingness to take time away from your busy schedules to help in formulating plans for a necessary forward step in American public education--development of a program-oriented accounting system for public schools.

Although boards of education always have been interested in getting the most for the school dollar, interest in the application of benefit cost analyses to various educational programs has increased during the decade of the 1960's. Viewing the problem through the eyes of a school board member, L. L. Ecker-Racz states the problem clearly in a paper presented to the 1964 National Conference on School Finance:

> High on my list of obstacles to adequate school support is our inability to demonstrate in tangible terms the value of an added dollar of input into education, i.e., the lack of an acceptable yardstick for measuring the educational product. This lack is keenly felt particularly in communities in which the expenditure level (cost per pupil) is substantially above that prevailing in surrounding areas. Low expenditure systems can fall back on seemingly favorable comparisons with their neighbors. Income statisticians have established that each additional year spent in school adds significantly to our children's prospective lifetime earnings. This much is clear. But, we know next to nothing about the

> relative productivity of alternative inputs into the educational system. The economist's concept of substitutions at the margin, where the several factors of production compete with one another for the additional dollar, is ignored if not totally rejected by educators.
>
> ....
>
> Citizens weaned on the rationality of the market place find it difficult also to reconcile our plea for additional school activities and for more staff, on the ground that these will improve the quality of education, with our dogged determination to hold on to every component incorporated into the school program in bygone years.
>
> Pedagogy, understandably, has its own fashions. This alone does not present a problem. It becomes a problem only because as we follow one fashionable project with another--educational television, teaching machines, group teaching, itinerant foreign language, music, art, and physical education instructors for the elementary grades, educational secretaries, lay readers, cafeteria attendants, etc.--the dogma permits only additions, never substitutions. Well-meaning citizens, accustomed to business and government practice, find it difficult to reconcile this one-way traffic with tight, business-like administration.

Time and again the school board must compare the educational values of several possible ways of spending a specific amount of money. Will the greatest educational value be obtained by adding to the elementary school libraries? buying more language laboratories? employing additional counselors? creating more special programs for the retarded pupils? transporting pupils to schools in diffirent parts of the city to achieve more uniform racial balance? These are but a few of the many possibilities the school board must consider.

Difficult as this choice may be, the problem becomes even more complex when the tax rate dimension is added. Should taxpayers be asked to contribute more so that one or two of these additional educational services can be provided for children and youth in the community? This question calls for a comparison of the value of an educational service, on the one hand, and the financial sacrifice of taxpayers, on the other.

Still another dimension of complexity is added to the problem when specially earmarked state or federal aids are available to support special aspects of the instructional program. For example, during recent years foreign language teaching laboratories have been available to local school districts at half price because Uncle Sam paid the other half of the cost under the National Defense Education Act. Budgetary choices are affected by several kinds of partial reimbursements from external sources.

Although the process of comparing dollar values and educational values cannot be simplified, it can be clarified to a much greater extent by better accounting procedures which show more clearly the effect of earmarked aids upon the budgetary choices and the net cost of partially reimbursed educational programs.

State and Federal Information Needs

In developing a program accounting system for public schools we must anticipate the fiscal information needs of the several states and the national government. Increasingly, these levels of government are contributing more toward the support of public school programs, and increasingly, they expect more information concerning the programs they support.

Each state legislature adopts each year or biennium a budget for public schools. This budget, too, must be program oriented and clearly related to the local school program budget. Only if this relationship is clarified can we expect legislators to understand and support the local school programs.

Similarly, recent increases in federal support for public school programs call for expenditure information related to the major programs supported from federal funds.

Program Classified by Income Source

A public school system in a typical American city provides a great variety of educational services and programs. Many of these programs are supported, in whole or in part, from state or federal funds. Some are supported entirely from local school district tax funds. Four types of financial arrangements are identifiable:

(1) The jointly financed mandatory foundation program.

(2) Locally financed optional programs.

(3) Jointly financed optional programs.

(4) Contracted programs with no local contribution.

Much has been said about the jointly financed mandatory foundation program. It is, or should be, defined by the state legislature to assure every child in the state opportunity for basic instruction of a kind and quality deemed to be adequate. It stresses equality of educational opportunity. Since it seeks to provide a basic state-wide program, it is, or should be, financed by taxes borne uniformly by all taxpayers in the state. The provision of such a program of instruction is not, or should not be, optional with local school boards; it is, or should be, a state mandated program.

Locally financed optional programs are authorized, but not financed, by the state. They are financed by local taxation in excess of the required local contribution to the mandatory program. Included in this category are expenditures for smaller classes, for teachers' salaries in excess of the state minimum, and for supplementary instructional programs not provided for in the state mandatory program. For example, the latter might include special music teachers or foreign language instruction in elementary schools. Such programs provide special advantages for pupils in a local school district and are, or should be, financed from local tax sources.

Jointly financed optional programs include those for which the state contributes a part of the excess cost and the local school district contributes the rest. These usually include programs which are expensive, and which the legislature wishes to encourage, but not mandate, for all schools in the state. Typically, programs for exceptional children and some vocational education classes are in this category. In some states, summer schools belong in this group.

Contracted services are operated by local school systems but financed entirely from external funds. In these programs the beneficiaries are not exclusively the residents of the local school district. Such programs may serve a region of the state as illustrated by an area vocational school, or they may serve a federal purpose such as retraining unemployed workers under appropriate federal laws. The distinguishing characteristic of contracted service programs is that the school district contributes facilities and know-how while the funds are provided entirely from state or federal sources or from another department of local government, as in the case of recreational programs using school facilities. As federal programs for the education of culturally disadvantaged and for the retraining of unemployed workers gain momentum, public schools may be called upon to render such contractual services more frequently than they have in the past--especially in the big cities. Therefore, it is important that expenditures for contracted service programs be identified and charged to the proper agency.

To summarize, then, four distinct types of programs have been identified, each of which has its special financing arrangements. First, there is the state mandatory program guaranteed for every child in the state, financed from taxes borne uniformly by all taxpayers in the state. Second, there are optional local programs supplementary to the state mandatory program, financed exclusively from taxes borne by the local school district property taxpayers. Third, there are the jointly financed optional programs, in which the cost is shared by the state and the local school district. Finally, there are the contracted service programs, in which the full cost is paid by another department of local government, by the state, or by the federal government.

Program Accounting for Three Levels of Government

This dependence of public schools upon financial support from three levels of government adds complexities not encountered by most federal or state agencies. For this reason development of program accounting procedures for public schools cannot be patterned after agencies supported exclusively from one source. For this reason some uniformity within states and among states is essential.

This requirement places a grave responsibility upon the U. S. Office of Education. Historically, the Office of Education has played a central role in developing uniform records and reports. Before World War II much of this effort was directed toward the Biennial Survey of Education and other statistical reports published by the U. S. Office of Education. After the war the Office developed and published a series of handbooks seeking to improve the amount and accuracy of public school information. Among these handbooks was one called Financial Accounting for Public Schools.

These efforts were made before the computer and represented significant steps forward. Since then the Office has played a key role in aiding state departments of education to computerize their data collection and processing systems.

The basic task, however, of developing a program accounting system for public schools remains to be done. True, several noteworthy efforts have been made and some of these will be reported to this conference.

The task is difficult not only because of the vast amount of detail involved in developing the system, but also because there are fundamentally different approaches; and the selection made at this point in the history of public schools will set the pattern for many years. Hopefully, this conference will contribute to a wise choice.

Our purpose, then, is to review various approaches to the problem, study their similarities and differences, and make recommendations relating to the problem of national uniformity. In this effort we should keep in mind the information requirements of the several states and the national government as well as those of local boards of education.

CONCERNS OF THE U. S. OFFICE OF EDUCATION

Based on Comments by Allan R. Lichtenberger

It is recognized that the subject of program accounting has wide application and that it will have effects on many phases of education and on school board policies. At the moment, the U. S. Office of Education is interested in the revision of a handbook, which we all recognize as Handbook II, Financial Accounting for Local and State Schools. The original Handbook II was developed in the 1950's and published in 1957, and as an initial handbook it helped to bring about many improvements in school finance accounting.

There is general agreement now, however, that this pioneer manual falls short of reflecting the financial operations of present-day school systems. There is a need for more comprehensive financial budgeting, accounting, and reporting. There are increased demands for information to support decision-making and widespread interest on the part of individuals and the public at large.

The revision of Handbook II is not intended to delineate and define specific programs. It should, however, facilitate program identification beyond the traditional function and subfunction classifications, and it should help to assess the costs of programs that are identified by local school districts. The revision will continue the object, service area or function, and area of responsibility classifications in order to account for dollars spent.

It also will suggest the logical points of linkage between finance information and the staff, property and instructional program information in order to match dollars spent with the goods and services which they bought and with instructional purposes.

The Conference on Academic Research Interests in the Proposed Revision of Handbook II, held in 1967, made some recommendations in regard to the proposed revision of Handbook II which this group should consider.

First, that conference recommended that the data in Handbook II be integrated into the comprehensive system of accounting to provide a complete view of the educational processes, and as a part of this integration that the data be associated very closely with handbooks on personnel data, on pupil personnel, and with any other published handbooks pertaining to educational financing. These positive linkages among the series of handbooks are considered essential.

Second, that conference recommended that the number of functional categories be reduced from the present 14 to 5. Since this recommendation was made, a number of individuals have questioned the usefulness of classifying by function. Since in many states a whole body of law is built around the functional classifications, this type of accounting will not be easy to change.

We all recognize that the planning-programming-budgeting system (PPBS) will have a substantial effect upon public school accounting. The revision of Handbook II will not consider the matter in detail, but it should provide the building blocks for the PPBS system.

It is apparent to many of us who work in this field, as we compare what we see happening in Los Angeles, St. Louis, and other metropolitan school districts, that there is a considerable amount of work going on. But we also note that there are some wide differences in methodology, and at the moment there is a lack of coordination of many of these efforts. One problem we will have to face--and we will have to be careful in facing this problem--is that there will be little acceptance of a handbook that suggests comparability between school districts based upon programs. We recognize that we are not going to have the same programs in school districts throughout the country.

Recently the U. S. Office of Education has been preparing a draft copy of the revised handbook for financial accounting. So that members of this conference and readers of this report will have some idea of the items which are intended at this time for inclusion in this revised handbook, we have extracted portions from the draft copy.

* * * *

Extract from Draft Copy of Handbook II - Financial Accounting for Local and State School Systems

Introduction

Following is a proposed framework or structure of accounts for review, discussion, modification, and adoption. It provides that school finance accounting include four major purposes or component parts, including:

Legislation and Policy Formulation
Direct Educative Services
Supporting Services
Ancillary Services and Transactions

The structure provides for the following areas for coding school finance transactions, not necessarily in this order:

(1) "Object" Purchased
(2) Fund
(3) Source of Revenue
(4) Service Area
(5) Area of Responsibility
(6) Scope
(7) Activities Assignment
(8) Grade Span
(9) Pupils Served
(10) Subject Matter
(11) Location (Physical)

The first six categories are the critical ones that relate to finance per se. The other categories come from Pupil, Staff, Property, and Instructional Programs handbooks.

The framework of structure of accounts is provided by the Service Area and Area of Responsibility. The complete structure is shown in Figure 1, pages - . Each major purpose is subdivided into at least one Service Area. Each SErvice Area is comprised on one or more Areas of Responsibility. Both are defined below:

Service Area. A major division of school system operation consisting of activities which, regardless of their nature, have the same general operational objective.

Area of Responsibility. A subdivision of a service area consisting of activities which, regardless of their nature, have a common purpose directly related to the operational objective of the service area. Each area of responsibility will serve as a "cost accumulation center" for all expenditures necessary for the fulfillment of its objectives.

Figure 1
Structure of Accounts

Purpose 1 - Legislation and Policy Formulation
Legislation and Policy Formulation is comprised of the following service area and areas of responsibility:

Service Area	Areas of Responsibility
Board of Education	Direction and Management
	Board Secretary
	Elections
	Other Board of Education Responsibility

Purpose 2 - Direct Educative Services
Direct Educative Services is comprised of the following service area and areas of responsibility:

Service Area	Areas of Responsibility
Teaching	Classroom Teaching
	Other Instruction
	Other Teaching Responsibility

Purpose 3 - Supporting Services

Supporting Services is comprised of the following service areas and areas of responsibility:

Service Area	Areas of Responsibility
Office of the Superintendent	Direction and Management Public Information Other Office of the Superintendent Responsibility
Fiscal Services	Direction and Management Budgeting Receiving and Disbursing Financial Accounting Internal Auditing Purchasing Other Fiscal Services Responsibility
Instructional Administration	Direction and Management Improvement of Curriculum and Instruction Other Instructional Administration Responsibility
R & D, and Evaluation	Direction and Management Research Development Evaluation Other Research, Development, and Evaluation Responsibility
Staffing and Training	Direction and Management Recruitment Staff Accounting Inservice Training Other Staffing and Training Responsibility
Centralized Automatic Data Processing	Direction and Management Systems Analysis Programming Operations Other Centralized Automatic Data Processing Responsibility
General Services	Direction and Management Warehousing and Distribution Centralized Printing, Publication, and Duplicating Services Other General Services Responsibility
Instructional Resources	Direction and Management School Library Audio-Visual

Service Area	Areas of Responsibility
	Educational TV
	Computer Assisted Instruction
	Other Instructional Resources Responsibility
Pupil Personnel Services	Direction and Management
	Guidance
	School Psychological
	Attendance
	Social Work
	Health:
	Physical and Mental Health
	Dental Health
	School Nurse
	Other Pupil Personnel Services Responsibility
Pupil Transportation Services	Direction and Management
	Transporting Pupils
	Vehicle Servicing and Maintenance
	Other Pupil Transportation Services Responsibility
Operation and Maintenance of Plant	Direction and Management
	Care and Upkeep of Buildings
	Care and Upkeep of Grounds
	Care and Upkeep of Equipment
	Other Operation and Maintenance of Plant Responsibility
Construction of Bldgs, Equipment, and Improvements to Sites	Direction and Management
	Construction of Buildings
	Improvements to Sites
	Construction of Equipment
	Other Construction of Plant Responsibility
Food Services	Direction and Management
	Food Preparation and Serving
	Other Food Services Responsibility

Purpose 4 - Ancillary Services and Transactions
Ancillary Services and Transactions is comprised of the following service areas and areas of responsibility:

Service Area	Areas of Responsibility
Community Services	Direction and Management
	Community Recreation
	Civic Activities
	Public Library
	Custody and Detention Care of Children

Service Area	Areas of Responsibility
	Welfare Activities Non-public School Pupils Other Community Services Responsibility
Other Transactions	Debt Outgoing Transfers

A school district makes expenditures for five different objects:

(1) Staff-provided Personal Services
(2) Nonstaff-provided Services
(3) Supplies and Materials
(4) Capital Outlay
(5) Other Expenses

Under each of these broad categories there are many subobjects.

* * * *

Discussion

One point that must be made is that in a handbook we must have mutually exclusive categories. Items within each category should not be capable of being combined or related to each other. This will cause some changes in the present system of operation.

Another change that has been recommended is that the category Fixed Charges be eliminated. The thinking on this is that those items now shown in Fixed Charges, such as overhead for teachers' salaries, retirement, and so forth, should be charged to the program or programs to which they really belong.

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THE MIDWESTERN STATES EDUCATIONAL INFORMATION PROJECT APPROACH TO PROGRAM ACCOUNTING

Based on Comments by Paul Bethke

An interesting observation of mine, and I am sure it is yours, too, is that no matter how independently the several groups work on this problem, they inevitably will come up with the same frustrations; and one of our frustrations is what is in the word *program*.

We attempted to define the word *program*. Our first order of business was that we develop a program-oriented accounting budget system. It seemed obvious that the next step would be to try to define the word *program*, but we soon found after a few frustrating lessons that the word used in this context defies precise definition. We tried to solve the problem, but only added to the confusion, by coining such terms as "major program," "minor program," and "subprogram."

I know that we all agree with Dr. Knezevich that what we finally come up with in the way of classifying expenditures into programs is really not going to help much unless we have some idea of what the program accomplishes, educationally, for the students. We, and more importantly, the taxpayers that pay the bill, need to know what these programs did for the children involved, what the educational objectives of each program are, and to what degree these objectives are achieved with the tax dollars expended.

We cannot expect to justify expenditure requests by programing any more than by the traditional function-object approach unless we describe the programs in terms of educational objectives and unless we can submit some evidence that we are truly reaching or approaching these objectives.

Another item of importance is that teachers must become more involved in budget preparation. Budgets imposed by administration in the traditional function-object configuration, with "Administration" heading the list, are no longer good enough to get necessary financial support. The accounting system that we design or recommend should support the budget process which we know lies ahead. In particular, the accounting and budgeting systems must provide meaningful information for sound decision-making. They must relate to the district's educational objectives, and they must serve as a public relations device for interpreting the school's function to the public.

THE PROGRAM-ORIENTED ACCOUNTING SYSTEM OF THE MIDWESTERN STATES EDUCATIONAL INFORMATION PROJECT

by George A. Chambers

The Midwestern States Accounting System, in my opinion, can best be described as a codification system for accounting and cost analysis based upon existing education programs. The system to be described is not a PPB system as defined in the current literature. However, the Midwestern States Educational Information Project (MSEIP) system will provide quantitative data heretofore not produced by typical accounting and cost accounting systems.

Suffice it to say that the MSEIP accounting system, like most interstate educational systems, is based upon compromise--compromise to facilitate implementation of the system in the 13 midwestern states involved in the project.

General Statements Describing the Accounting System

Enumerated below are general statements that, in my judgment, describe the MSEIP accounting system:

1. The system provides more recognition to serving management needs than is presently possible with traditional accounting methods.
2. The system provides the same basic data classifications for use in the bookkeeping accounts that are required for the budget detail and for the reports that are prepared periodically for cost analysis and budget control.

3. The system is most easily adaptable by districts utilizing electronic data processing. The system can be implemented in districts utilizing machine accounting. Considerable difficulty, because of time demands, will be encountered in attempting to implement the system on a "non-machine" basis.
4. The MSEIP system can be used for a cash, modified cash or accrual accounting system.
5. The MSEIP system is based upon the assumption that a double-entry system utilizing ledger asset and liability accounts will be used.
6. The system does not provide a formal means for consideration of depreciation.
7. The basic aim of the system is to charge only direct expenses to the various cost centers. If any proration of costs, such as heat, light, etc., to specific programs is to be considered, such proration will be handled through separate cost analysis reports.
8. The system does not attempt to match all revenues with expenditures. However, flexibility within the system would permit the matching of revenues with expenditures in selected program areas.
9. The traditional method of illustrating a chart of accounts is omitted. Because the MSEIP accounting system is program-oriented, the accounting manual does not present a chart of revenue and expenditure accounts in the

traditional manner. A chart of accounts for the MSEIP system could have several thousand accounts for each organizational unit within a school district.

10. The five types of accounts utilized in the system are asset, liability, fund balance, expenditure, and revenue accounts.

Accounting for Expenditures

Eight coding sections, as illustrated in Figure 1, are available for use in accounting for identifying expenditures. It should be noted that the expenditure section provides 18-digit expenditure code.

Figure 1

Code Section A	B	C	D	E	F	G	H
Fund	Type of Account	Organizational Unit	Area of Responsibility	Subject Area	Course	Activity	Object
XX	X	XXX	XXX	XX	XXX	XX	XX

The following is an explanation of each of the expenditure codes sections (A through H).

Code Section A - Fund

Two digits in the coding system are allocated for the fund designation. Because the fund structure varies from state to state, no attempt was made to assign code numbers to each of the funds that might be established. Each state educational agency will assign numbers to the funds that are used by districts within the state.

Code Section B - Type of Account

One digit in the coding system is allocated to designate the type of accounts affected by a transaction. There are five types of accounts: asset, liability, fund balance, revenue, and expenditure. In each transaction one or more types of accounts are affected. In a cash transaction, an asset (cash) and either a revenue or expenditure account are affected. In a non-cash transaction, one or more of the five types of accounts are affected. In a cash transaction, the one digit indicates whether or not a revenue or expenditure account is affected; and in a non-cash transaction, the one digit indicates the asset, liability, fund balance, revenue, or expenditure account types affected.

Code Section C - Organization Unit

This section uses a three-digit code to identify the organization, under a single administrative head, created to fulfill certain instructional, supporting, or community service responsibilities. The organization-unit code number will be assigned by the state educational agency or the local district.

Code Section D - Area of Responsibility

This code section uses a three-digit number with specific numbers assigned to each of the areas of responsibility. The areas of responsibility are classified into 13 functional categories which are identified by code number ranges. The 13 Areas of Responsibility are Instruction, General Control, Instructional Administration, Research and Development, Facilities--Maintenance and Operation, Facilities--Acquisition and Improvement, Food Services, Pupil Personnel Services, Health Services, Pupil Transportation, Community Services, Outgoing Transfers, and Debt Service.

Code Section E - Subject Area

A two-digit code is used for all expenditures that can be identified with a subject area. The code "00" will be used for all expenditures that cannot be identified within one of these areas.

Code Section F - Course

This is a three-digit code section and is made available for those districts that wish to account for the direct expenditures of each course and grade level. This code section also can be used to identify expenditures for specific cocurricular activities.

Code Section G - Activity

This two-digit code section is used for gathering together all of the costs--salaries, supplies, equipment, etc.--of a specific type of work, regardless of the organizational unit, area of responsibility, or subject area (eg., accounting, census, recruiting, police, teaching, and warehousing).

Code Section H - Object

A two-digit code section identifies the object classification. This section will be used to identify the objects of expenditure. The objects are organized into nine general categories. Each of these categories is subdivided into specific object classifications.

Codification of Expenditure Transactions

We shall now turn our attention to examples of coding expenditure transactions. In reviewing the following codifications of expenditure transactions, it will be helpful to refer to the MSEIP expenditure categories presented in Figure 2.

Figure 2

Categories and Code Numbers Utilized in the
Codification of Expenditure Transactions

A. FUND

10	General Fund
20	Building Fund
XX	(As Needed)
XX	

B. TYPE OF ACCOUNT AFFECTED

1. Asset
2. Liability
3. Fund Balance
4. Revenue
5. Expenditure

C. ORGANIZATIONAL UNIT

000	Administrative Offices
00X	(As Needed
1XX	High Schools (Individually Numbered)
199	All High Schools within the District (Individually Numbered)

2XX	Junior High Schools (Individually Numbered)
299	All Junior High Schools within the District
3XX	(As Needed for Other Schools, e.g., Middle School)
400-798	Elementary Schools (Individually Numbered)
799	All Elementary Schools within the District
8XX	Summer Programs Individually Identified
899	All Summer Programs
9XX	Adult Education Programs Individually Identified
989	All Adult Education
990	Activities Associated with One or More Schools but Administered Independently of Them
998	Activities Not Associated with a School or Administrative Office
999	Other Units Not Applicable to Previous Code Numbers

D. AREA OF RESPONSIBILITY

100-199 Instruction

101	Instructional Services, General
111	Classroom Teaching
121	Library Services
131	Computer Assisted Instruction
141	Educational TV Services
151	Audio-visual Services
161	Homebound Teaching and Other Teaching

200-249 General Control

201	General Administration
206	Board of Education
211	Business and Finance
216	Data Processing
221	Legal Services
226	Personnel Administration
231	Warehousing and Distribution
236	Centralized Printing and Publication Services
241	Other General Control

250-269 Instructional Administration

251	Instructional Admin., General
256	Administration of a School
261	Improvement of Curr. and Instr.
266	Other Instructional Admin.

270-299 Research and Development

271	R & D General
276	Research
281	Development
286	Evaluation
291	Statistics
296	Other R & D Services

- 300-349 Facilities, Maint. & Operation
  - 301 Plant Maint. and Operation, General
  - 311 Site Maintenance
  - 316 Site Operation
  - 321 Building Maintenance
  - 326 Building Operation
  - 331 Built-in Equipment, Maint.
  - 336 Built -in Equipment, Oper.
  - 341 Movable Equipment, Maint.
  - 346 Movable Equipment, Oper.

- 350-399 Facilities, Acquisition or Improvement
  - 351 Plant Acq./Improvement, General
  - 361 Site Acq./Improvement
  - 371 Building Acq./Improvement
  - 381 Built-in Equip. Acq./Improvement
  - 391 Movable Equip. Acq./Improvement

- 400-499 Food Services
  - 401 Food Services, General
  - 411 Food Preparation and Serving
  - 421 Transportation of Food
  - 431 Other Food Services

- 500-549 Pupil Personnel
  - 501 Pupil Services, General
  - 511 Attendance Services
  - 516 Guidance Services
  - 521 Social Work Services
  - 526 Psychological Services
  - 531 Therapeutic Services
  - 541 Other Pupil Services

- 550-599 Health Services
  - 551 Health Services, General
  - 561 Medical Services
  - 566 School Nurse Services
  - 571 Dental Services
  - 581 Other Health Services

- 600-699 Pupil Transportation
  - 601 Transportation, General
  - 611 Vehicle Operation
  - 621 Vehicle Servicing and Maintenance
  - 631 Other Transportation Services

- 700-799 Community Services
  - 701 Community Services, General
  - 711 Recreation
  - 721 Civic Activity
  - 731 Public Libraries
  - 741 Custody and Detention
  - 751 Welfare Activities
  - 761 Non-public School Services
  - 771 Other Community Services

800-899 Outgoing Transfers

801	Transportation within State
811	Transportation outside State
821	Tuition within State
831	Tuition outside State

900-999 Debt Service

911	Bond Redemption
921	Long Term Loan
931	Short Term Loan
941	Current Loan

E. SUBJECT AREA

00	Does Not Apply (DNA)
01	Agriculture
02	Art
03	Business
04	Distributive Education
05	English Language Arts
06	Foreign Language
07	Health Occupations
08	Health, Safety, Physical Education
09	Home Economics
10	Industrial Arts
11	Mathematics
12	Music
13	Natural Science
14	Office Occupations
15	Social Studies
16	Technical Education
17	Trades and Industry
18	General Education (Pupil Supervision)
19	Exceptional Child Education
20	Cocurricular Activities
21	Academic Cocurricular Activities
22	Athletic Cocurricular Activities
23	Music Cocurricular Activities
24	School Services Cocurricular Activities
25	Cocurricular Social Organizations
30	Driver Education
50	Homeroom, Elementary (Non-departmentalized)
51	Homeroom, Secondary (Non-departmentalized)

F. COURSE

xxx (Local Number)

G. ACTIVITIES

02 Accounting
04 Administrative
06 Architectural
08 Auditing

10 Census
12 Clerical and Secretarial
14 Counseling
16 Custodial
18 Guard and Police

20 Health or Medical
22 Maintenance and Repair
24 Recruiting Personnel
26 Pathological
28 Supervisory

30 Teaching
32 Teaching Assistance
34 Therapeutic
36 Transportation
38 Transportation, Other

40 Warehousing and Distributing

H. OBJECT

10 Salaries
11 Certificated, Regular
12 Certificated, Substitute

16 Non-Certificated, Regular
17 Non-Certificated, Temporary
18 Non-Certificated, Substitute

20 Employee Benefits
21 Social Security
22 State Retirements
23 Municipal Retirements
24 Local District Retirement
25 Health Insurance
26 Life Insurance
27 Guaranteed Income Insurance
28 Workmen's Compensation
29 Other Benefits

30 Supplies
31 Textbooks
32 Textbooks, Resale or Rental

33 General Supplies
34 General Supplies for Resale
35 Library Materials

40 Contracted Services
41 Consultation
42 Other Non-staff Personnel
43 Transportation
44 Tuition
45 Repairs
46 Insurance
47 Memberships
48 Rentals
49 Other Contracted Services
(Except Utilities)

50 Contracted Services Utilities
51 Electricity
52 Telephone and Telegraph
53 Water
54 Sewer
55 Gas
56 Oil
57 Coal
58 Other Utilities

60 Employee Travel
61 Travel within District
62 Travel outside District

70 Facilities
71 Site Purchase
72 Site Improvement
73 Building Purchase
74 Building Lease or Lease Purchase
75 Building Improvement

80 Equipment
81 Furniture, New
82 Furniture, Replacement
83 Machinery and Apparatus, New
84 Machinery and Apparatus, Replacement
85 Vehicles, New
86 Vehicles, Replacement

90 Debt Services
91 Principal
92 Interest

Accounting for Revenues

Six code sections, as illustrated below, are available for the identification of revenues. Fourteen digits may be utilized to identify revenues.

Figure 3

Code Section	A	B	C	D	E	F
Dimension	Fund	Type of Account	Organiz. Unit	Source and Type Revenue	Subject Area	Course
No. of Digits	XX	X	XXX	XXX	XX	XXX

It should be observed that the first three sections (A, B, and C) of revenues are identical to the first three sections for codification of expenditures. (See Figure 1)

The following is a brief explanation of each of the revenue code sections (A through F):

Code Section A - Fund

This section uses the same two-digit code numbers that were established for identifying the fund in the expenditure accounts.

Code Section B - Type of Account

The digit in this code section identified the account as asset, liability, fund balance, revenue, or expenditure account.

Code Section C - Organizational Unit

The same three-digit code is used here that was utilized to identify the organization unit in the expenditure section.

Code Section D - Source and Type of Revenue

Three-digit code numbers are used in this section to identify the source and type of revenue.

Code Section E - Subject Area

Two-digit code numbers are used to identify the Subject Area when it is appropriate to relate subject areas to a Revenue (e.g., vocational agriculture subsidy monies). The account numbers used in Expenditure Section E, when deemed appropriate, will be used here.

Code Section F - Course

This code section, like Code Section E, is used only when it is deemed appropriate to further identify Revenues. The identifying code number for the couse is the same code number that is used when expenditures are reported by course.

Codification of Revenue Transactions

We shall now turn our attention to examples of coding revenue transactions. In reviewing the codification of revenue transactions, it will be helpful to refer to the MSEIP revenue categories presented in Figure 4, which shows revenue code numbers by sections.

Figure 4

Categories and Code Numbers Utilized in the Codification of Revenue Transactions

A.	FUND
10	General Fund
20	Building Fund
XX	(As Needed)
XX	

B.	TYPE OF ACCOUNT AFFECTED
1.	Asset
2.	Liability
3.	Fund Balance
4.	Revenue
5.	Expenditure

C.	ORGANIZATIONAL UNIT
000	Administrative Offices
00X	(As Needed)
1XX	High Schools (Individually Numbered)
199	All High Schools within the district (Individually Numbered)
2XX	Junior High Schools (Individually Numbered)
299	All Junior High Schools within the District
3XX	(As Needed for Other Schools, e.g., Middle School)
400-798	Elementary Schools (Individually Numbered)
799	All Elementary Schools within the District
8XX	Summer Programs Individually Identified
899	All Summer Programs
9XX	Adult Education Programs Individually Identified
989	All Adult Education
990	Activities Associated with One or More Schools but Administered Independently of Them
998	Activities Not Associated with a School or Administrative Office
999	Other Units Not Applicable to Previous Code Numbers

D.	SOURCE AND TYPE OF REVENUE
100	Revenue From Local Sources

110	Property Taxes
111	Current Taxes
112	Back/Delinquent Taxes
113	Taxes in Advance
114	Payments in Lieu of Taxes

120	Sales Taxes
121	Current Taxes
122	Back/Delinquent Taxes
123	Taxes Advanced
124	Payments in Lieu of Taxes
130	Income Taxes
131	Current Year Taxes
132	Back/Delinquent Taxes
133	Taxes Advanced
134	Payments in Lieu of Taxes
140	Special Taxes
141	Current Year Taxes
142	Back/Delinquent Taxes
143	Taxes Advanced
144	Payments in Lieu of Taxes
150	Tuition
151	Tuition from Students
152	Tuition from Patrons
160	Transportation
161	Transportation Fees from Students
162	Transportation Fees from Patrons
163	Transportation Fees from Other Sources
170	Student Sources
171	Fees and Rentals
172	Athletic Activities
173	Music Activities Receipts
174	Food Services Receipts
175	Other
180	Interest
190	Other Revenue from Local Sources
191	Gifts
192	Facilities Rental
193	Other
200	Revenue From Intermediate Sources
210	Property Taxes
211	Current Taxes
212	Back/Delinquent Taxes
213	Taxes in Advance
214	Payments in Lieu of Taxes
220	Sales Taxes
221	Current Taxes
222	Back/Delinquent Taxes
223	Taxes Advanced
224	Payments in Lieu of Taxes

230 Income Taxes
231 Current Year Taxes
232 Back/Delinquent Taxes
233 Taxes Advanced
234 Payments in Lieu of Taxes

240 Special Taxes
241 Current Year Taxes
242 Back/Delinquent Taxes
243 Taxes Advanced
244 Payments in Lieu of Taxes

250 Tuition
251 Tuition from Students
252 Tuition from Patrons

260 Transportation
261 Transportation Fees from Students
262 Transportation Fees from Patrons
263 Transportation Fees from Other Sources

270 Student Sources
271 Fees and REntals
272 Athletic Activities
273 Music Activities Receipts
274 Food Services Receipts
275 Other

280 Interest

290 Other Revenue from Intermediate Sources
291 Gifts
292 Facilities Rental
293 Other

300 Revenue from State Sources

310 State Foundation Program
320 Transportation
330 Driver Education
340 Special Education
350 Vocational Education
360 Monies in Lieu of Taxes
390 Other Revenue from State Sources

400 Revenue from Federal Sources

410 Vocational Education
411 Agriculture
412 Distributive Education
413 Health Occupation Education
414 Home Economics
415 Office Education

416 Technical Education
417 Trades and Industrial Education
418 Practical Nurse Training (P. L. 84-911)
419 Area vocational Education (P. L. 85-864 Title VIII)
420 Vocational Education Act 1963 (P. L. 88-210)
421 Manpower Development Training Act 1962 - Indian Vocational Training (P. L. 88-214)
422 Manpower Development Training Act 1962 - Training Programs (P. L. 89-15)
423 Public Health Training - Traineeship (P. L. 87-543)
424 Public Health Service Act - Nurse Training (Title VIII)
425 Welfare Education Program - ADC - (P. L. 87-543)
426 Vocational Rehabilitation (P. L. 66-236
427 Social Security Amendments 1957 - Research and Demonstration Projects (P. L. 84-880)
428 Appalachian Regional Development Act 1965 (P. L. 89-4)

430 Educational Opportunity Act 1964 (P. L. 88-452)
431 Title IB - Neighborhood Youth Corps
432 Title IIA - Community Action Programs (Basic Adult Education)
433 Title IIA and IIIB - Special Poverty Programs

440 Elementary and Secondary Education Act (P. L. 89-10)
441 Title I - Educationally Deprived
442 Title II - Library
443 Title III - Supplementary Education
444 Title VI - Special Education

450 National Defense Education Act (P. L. 864)
451 Title III - Instruction
452 Title VA - Guidance

460 Miscellaneous
461 Federal Forest Lands
462 Flood Control
463 Grazing Land
464 Johnson-O'Malloy Act (P. L. 73-167)
465 Adult Education-Indian Program (P. L. 67-85)
466 Mineral Leases
467 National School Lunch Program
468 School Milk Program
469 Construction/Federally Impacted Areas (). L. 81-815)
470 Maintenance and Operation/Federally Impacted Areas (P. L. 81-874)
471 Assistance for Public Schools Affected by Major DIsasters (P. L. 89-313)
472 Immigration and Nationality Act (P. L. 414)
473 Juvenile Delinquency and Youth Offenses Control Act 1961 (P. L. 87-274)
474 Migrant Health Act 1962 (P. L. 87-692)
475 Vaccination Assistance Act 1962 (P. L. 87-868)
476 Educational Television Broadcasting Facilities (P. L. 87-447)
477 Library Services and Construction (P. L. 88-269)
478 Title II - Civil Rights Act 1964 (P. L. 88-353)

479	Title IV - Civil Rights Act 1964 (P. L. 88-353)
480	Teaching Materials for the Blind (20 USC 101-105)
481	Research and Demonstration Projects in Education of the Handicapped (P. L. 88-164)
482	Area Redevelopment Act (P. L. 87-27)
483	Civil Defense Adult Education Porgram
490	Other
491	Federal Reimbursements
500	Sale of Property
510	Sale of Equipment
520	Sale of Buildings
530	Sale of Sites
900	Incoming Transfers
910	Tuition from within the State
920	Tuition from outside the State
930	Transportation from within the State
940	Transportation from outside the State

E.	SUBJECT AREA
00	Does Not Apply (DNA)
01	Agriculture
02	Art
03	Business
04	Distributive Education
05	English Language Arts
06	Foreign Language
07	Health Occupations
08	Health, Safety, Physical Education
09	Home Economics
10	Industrial Arts
11	Mathematics
12	Music
13	Natural Science
14	Office Occupations
15	Social Studies
16	Technical Education
17	Trades and Industry
18	General Education (Pupil Supervision)
19	Exceptional Child Education
20	Cocurricular Activities
21	Academic Cocurricular Activities
22	Athletic Cocurricular Activities
23	Music Cocurricular Activities
24	School Services Cocurricular Activities
25	Cocurricular Social Organizations
30	Driver Education
50	Homeroom, Elementary (Non-departmentalized)
51	Homeroom, Secondary (Non-departmentalized)

F. COURSE

XXX (Local Number)

Concluding Remarks

The program-oriented accounting system developed by the Midwestern States Educational Information Project is an initial but significant step twoard a PPB system. Like any system, the MSEIP accounting system has many strengths and weaknesses. The major strengths, in my opinion are (a) the simplicity and continuity of the format, (b) the flexibility of the system for use at the local district level and for use by departments of public instruction for data collection, (c) the utilization of existing and/or recognized educational classifications, (d) the integration of the finance system with four other information systems: pupils, personnel, facilities, and instructional programs, (e) the uniformity of data providing for both intra and interstate comparisons heretofore not available, (f) the lessening of the importance of "object" expenditures by placement of objects in the last section in the codification structure, and (g) the recognition of assets, liability, and fund balance accounts. Two major weaknesses of the system appear to be (a) the excessive number of digits necessary to record financial transactions, especially expenditures, and (b) the difficulties of implementing the system in districts utilizing manual accounting techniques.

REFERENCE

Manual for program-oriented budgeting and accounting. Midwestern States Educational Information Project-P. L. 89-10, Title V, Section 505. Des Moines: State of Iowa (Fin-R-9, Revised April, 1968).

THE PHILADELPHIA, PENNSYLVANIA SCHOOL DISTRICT APPROACH TO PROGRAM ACCOUNTING

Based on Comments by Oliver S. Brown

We have all become aware in recent years that financial accounting must do far more than serve the needs of accountants, comptrollers and auditors. The essential weakness that all of us have experienced with the present system of accounting for educational expenses is that we find it impossible to relate the information produced to actual working programs and activities of the school and to the school system as a whole. In using the terms, goals and objectives, Philadelphia defines a goal as a broad directional statement; and an objective means something more specific to be achieved in a particular period of time.

The Philadelphia system attempts to interface activities, and major programs or activities, such as the vocational education activity, with its goals and objectives. It is interesting to note that Philadelphia is in its second year of developing a program budgeting system and it uses no other system. In contrast, the city of Philadelphia has two budgets, a program budget and an administrative budget, which is a parallel system. While the city may have fewer problems in making the transition to a full program accounting system, it has been noted that individuals cling to the older administrative budget rather than using the new program accounting system if both are available.

Essentially the Philadelphia school system has 13 operating programs. These are:

Early Childhood Education
Elementary Education
Junior High School Education
Senior and Technical High School Education
Special Education
Community Education and Services
Health and Pupil Services
Instructional Services
Plant Operations and Maintenance
General Services
Transportation
Planning
School District Management
Debt Service
Contingencies
Fringe Benefits

Within each of these programs are activities. As an example, if we were to examine the activities in the program of Elementary Education, we would find the following list:

Art
Basic Skills - Grades 1-3
Health and Physical Education
Music
Remedial Education
Libraries
General Education Support
Counseling
Summer School
Supervision and Clerical
Home Economics
Science
E. I. P. Consulting Teachers
Collaborating Teachers
Basic Skills - Grade 5
Basic Skills - Grade 6
Basic Skills - Grade 4
Employee Benefits

It is true that certain types of information we would desire require some analytical treatment of the information we have recorded. For example, if one wished to find how much was being spent on first grade education, a number of the activities that would be included in that overall program would have to be totaled. It is felt that an accounting system which would directly give all of this type of information would be too expensive.

The Philadelphia system also contains an object classification. Within the program of elementary education we may show our budget or our expenditure figures by object classification as follows:

OBJECT CLASSIFICATION

100 Personal Services

  Full Time
  After School
  Part Time Substitutes and Other, Less Turnover

200 Contracted Services

300 Supplies

400 Books

500 Equipment

600 Employee Benefits

Philadelphia is now considering a number of changes and improvements for the new system it has developed. An example of these includes the assignment to a federally-funded activity having the same coding as appears in the general fund activity. Another improvement will be to develop the system so that it will serve a greater number of levels within the organization rather than just the administrative level. At that time it is hoped it will be possible to generate program activity statements for individual schools similar to those now generated for the system as a whole.

Another change being contemplated is the elimination of what are now some of the programs which are in reality subprograms of other programs. An example of this changeover is the program now called Special Education, which is really a subprogram of many other programs listed in the major list. At this point in the discussion, it is germane to refer to portions of the Proposed Operating Budget of the School District of Philadelphia, for the fiscal year beginning July 1, 1968. Excerpts from Part 3 of that budget report, outline clearly the thinking in the Philadelphia school district regarding budgeting by program; and, therefore, these excerpts are of interest:[1]

* * * *

Budgeting by Program

> The School District has developed a planning, programming, budgeting system to meet some of the principal difficulties with traditional financial management of most school systems. These difficulties may be summarized as: first, no long-range planning; second, no process for establishing priorities; third, line-item budgeting which minimizes the ability to manage and does not identify resources with specific educational programs; fourth, no attempt to show least cost alternatives; fifth, lack of management information for responding to public questions and for making sound judgments; sixth, absence of program measurement in terms of costs and benefits; and seventh, lack of financial authority commensurate with responsibility and the consequent lack of accountability.
>
> The new approach, a planning, programming, budgeting system, is not, of course a panacea which will sweep away all problems but a practical aid to management similar to those in other large enterprises. The new approach is not a label but a basic resolution of technical questions so that school administrative machinery can move ahead.

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[1] The Proposed Operating Budget of the School District of Philadelphia (Philadelphia: Board of Education, The School District of Philadelphia, 1968), pp. 8, 9, 16, 17.

Planning

Let us consider the planning aspect first. Planning involves the setting of goals, the determination of objectives and the evaluation of alternatives in a time frame of more than one year. Such an approach, relating planning and budgeting, has been built into the Philadelphia School District 1968-1969 budget process by utilizing the goal statement shown on page 16. In the 1968-1969 budget process, these goals provided a clear statement of general educational policy, guidance in the process of allocating resources, and a basis for establishing specific objectives. The goals represent end distinctions which put the focus on programs and activities as well as on the method of evaluation, the process which examines whether we are progressing in the right direction and whether we are getting maximum performance. At the end of each year, the staff and the Board examines the progress made to date, accounts for successes and failures, up-dates the goals, the programs and activities, and the methods of evaluation.

Programming

The means by which the School District carries out the goals of the Board of Education are called programs and activities (subprograms). There are presently 14 programs and within each are many activities. They are formulated in such a way as to facilitate relating planning, programming and financial budgeting. The programs are a concrete expression of the goals and objectives of the system. As the Board reviews the document with the community before adoption, it will make every attempt to see that the system-wide goals are, in fact, compatible with the specific goals of the programs to which they allocate resources. Examples of some program goals follow:

(1) To improve performance skills of reading, writing, mathematics and oral language.
(2) To decrease the number of teachers who fail to complete the first year.
(3) To increase the holding power of the secondary schools.

Allocation of Resources

In 1968-1969, the effort also is to introduce ways to measure the benefits of programs to provide the basis for deciding among alternative programs. The labels used to describe methods are variously cost benefit, cost effectiveness, or simply systems analysis. Much development by researchers is needed here to sharpen the quantitative measurements. That effort is also underway. Even so, at no time will analytic techniques replace judgment. They simply carry questions on resource allocation as close to decision as possible, using facts and rigorous analysis before the exercise of final judgment. Let us look at some quantitative and other educational effectiveness and attitude measures:

(1) Improvement in the median reading score.
(2) Improvements in interest in reading as demonstrated by number of increased non-required books read.

(3) Increased attendance in school.
(4) Reduced incidence of vandalism.
(5) Increase in placement of students in post-high school educational institutions.

Program Budgeting

The Philadelphia School District in 1966-1967 moved from a traditional organizational line-item budgeting and reporting system, which identifies cost with the departmental responsibility and object of expenditure--wages, books, supplies--to a program and reporting system which also relates expenditures to educational and other goals of the School District. In the system, financial budget elements are expressed primarily in terms of what we are getting out of the expenditures and, secondarily, in terms of what we are putting in. Thus, the system presents the educational program by function and activity, according to objectives or "outputs." For example, an "output" of an elementary program would be boosting student skills in reading or arithmetic; and "input," thus, would be a specified number of teacher aids, requiring a specified number of dollars.

The principal benefits of the program budget technique are the more ready matching or interfacing of the financial budget to the programming described previously and at the same time providing a basis for performance measurement and management through a synchronized reporting system as discussed subsequently.

* * * *

It is also interesting to note, from Part 4 of the same document, the comments made with regard to the coming year entitled Progress Through Priority Management. Since these are of general interest, they, too, are reproduced here.

* * * *

The Coming Year: Progress through Priority Management

An essential part of the planning of the proposed operating and capital budgets has been development and refinement of a system of goals and priorities. This process is important to give thrust and perspective to resource allocation, to give the citizens of Philadelphia a clear sense of where the School District plans to go and what it will emphasize in getting there, and to provide guidelines to the management of the budget.

The overall goals of the School District, against which budgeting and progress are measured, are divided into three groups. First are Learning Goals--an expression of the basic reason and prime responsibility for the schools. Second are Community Goals. These goals are equally critical to the effectiveness of school programs, but responsibility for their achievement is shared with other groups and institutions of the society. The third group is Enabling Goals. These express vital management concerns which must operate effectively to service individual schools and facilitate achievement of learning and community goals.

Learning Goals

To develop in each student, by relevant, interesting and diversified instruction, a command of the basic skills and the ability to think clearly, communicate effectively and learn easily.

To help each student to be creative and make cultural and recreational activities a part of his life.

To give each student a clear and honest understanding of the United States, including contemporary urban problems, historical interpretation and international relations.

Community Goals

To provide each student with an awareness of career alternatives and with the skills, motivation and assistance to choose his own future.

To make our schools as freely integrated and diversified as possible and to develop greater harmony among differing ethnic groups.

To develop more direct and effective systems of communication and involvement with the community and with government agencies at all levels.

To improve adult educational opportunities.

To improve mental and physical health so that each student respects himself and others and so that he can cope with his environment constructively.

Enabling Goals

To develop an efficient, responsive and flexible organization with the motivation, ability and resources to meet the needs of each student, each teacher and administrator, and each school.

To engage in every effort to attract, train and retain the most competent personnel.

To improve the effectiveness of educational program planning.

To provide functional physical plants, in which teachers can utilize modern teaching methods and to which community residents will come.

To improve short and long-range planning and decision-making.

Goals are indicators of long-range emphases and aims. Priorities, on the other hand, speak to the relative importance of goals and means for achieving goals. A priorities statement is a definition of trust of reallocation and management: how to make maximum progress towards critical goals with limited resources.

The following priorities define the thrust of this document and the educational program of the School District for 1968-1969; as well as the administrative and management thrusts of the district:

Stress on basic skills development for all children.
This means spending first to assure that the preconditions of learning are met in every school: teachers, supplies, instructional leadership, decent working conditions, relevant materials, and a staff with the know-how to most effectively reach students.

Strengthening of the educational program in the early years.
This means moving through management to provide a better coordinated, continuous, articulated early years program from prekindergarten through the elementary years, within the context of basic skills development.

Reduction of destructive tensions that thwart instruction in overcrowded high schools.
This means taking steps to relieve overcrowding immediately while stressing interpersonal, interracial and curricular improvements that channel destructive energies of disruptive pupils into educational programs meeting their needs.

Development of richer, more relevant curriculum.
This emphasis, which is inseparable from staff development, means creating greater flexibility in curriculum to permit individualized programs through elective courses; increased reliance on proven nationally-developed curriculum; materials to supplant locally-developed materials; and an effort to revise present curriculum and develop new thrusts in such areas as Afro-American History, Urban Affairs, Sex Education and Family Life which speak directly to the lives and concerns of urban students.

Improvements in known kinds of administration which hamper smooth school operations.
This means quicker maintenance, improved flow of supplies and equipment, quicker processing and flow of information, and related supports which facilitate implementation of the instructional program.

Management emphasis on qualitative improvements which do not require major dollar expenditures.
This means emphasis on goals and priorities in day-to-day decision-making; further refinement of the programming-planning budgeting system; and budget management and reporting by school and district. Integral to the latter effort are tighter controls on equal allocation of staff and supportive services among all schools and racial integration of staff.

Efforts towards decentralization.
Administratively, this priority relates particularly close to the above, and effects management in almost all priority

items. It means, for example, providing the information and the authority to field personnel at the district or school level to enable decision-making on deployment of personnel or material, within allocated limits, to respond to the individual needs of individual schools. For example, a District Superintendent might decide one school needs special emphasis on reading, and another on mathematics, and deploy his resources accordingly. The non-budgetary thrust of decentralization means working towards increased participation of local communities in local school or district affairs.

Nurturing innovative starts.
This means continuing to invest heavily in programs which the research indicates are having pay-off and working to disseminate and diffuse their results. Federal funds must continue to provide the major thrust of this effort.

* * * *

THE ST. LOUIS, MISSOURI APPROACH TO PROGRAM ACCOUNTING

Based on Comments by Sam Lawson

The St. Louis public schools have been able to achieve a degree of sophistication insofar as the data processing applications to financial accounting are concerned. The current budget includes some $500,000 per year for the data processing service, as it applies to the financial accounting process; and this investment appears to pay handsome dividends. The payroll job costing the accounting system, student accounting rate report, and inventory control are all automated; and by comparison with many school districts throughout the country, the St. Louis public schools appear to have achieved a degree of sophistication matched by only a few. However, evaluation of a spending program is still out of reach.

The budget director for the St. Louis public schools prepares two types of budgets: one, an accounting budget, the other, what might be termed a summary budget. The accounting budget is a detailed, complete listing of all income and expenditure estimates for the fiscal year. The summary budget attempts to summarize, in less than a quarter of the total volume of the accounting budget, those items of particular interest to school board members who are the decision-makers. The accounting budget offers a breakdown into nine functional categories:

1. Administration
2. Instruction
3. Attendance and Health
4. Transportation

5. Operation of Plant
6. Maintenance of Plant
7. Fixed Charges
8. Food and Community Services
9. Capital Attendance

Budget requests and appropriations are also listed by object code classification. There are 22 of these in the St. Louis system. They are:

1. Regular Salaries
2. Temporary and/or Overtime Salaries
3. Supplies
4. Contracted Printing and Publishing
5. Rental
6. Contracted Custodial Services
7. Contracted Personal Services
8. Contracted Repairs
9. Contracted Construction
10. Tuition
11. Advertising
12. Memberships and Contributions
13. License Fees and Permits
14. Public Utilities
15. Postage
16. Travel
17. Transportation
18. Sights, Buildings, and Equipment
19. Insurance

20. Interfund Transfers
21. Unclassified Expenditures
22. Contingencies

Each of the major functional classifications is further broken down. For example, the category of Instruction is subdivided into elementary education, secondary education, special education, special services, and college education. There are further breakdowns from these major categories, but they are too detailed to go into at this point.

Within the elementary schools, there is no attempt to delineate costs in self-contained classrooms. But there are some programs at the elementary level which can be identified and for which direct charges can be listed. These include:

1. Kindergartens
2. Homemaking
3. Industrial Arts
4. Instrumental Music Programs

Under the St. Louis system it is also possible to isolate the costs of such programs as the gifted program, remedial reading program, and others. One rather important element indicating sophistication in the system is that an item of accounting information that goes into the data processing system is captured only once, obviating a need for more than one input of the same item of information.

A number of accounting reports were discussed next. The scope of these indicates the management utility of this particular system. Typical of these management reports is one entitled

"Conditions of Appropriations," a report which comes out twice a week. This report offers management a number of items of information: (a) the appropriated amount, (b) the amount expended this period, (c) the expenditures to date, (d) outstanding encumbrances, and (e) unexpended appropriations.

Another report, also entitled "Condition of Appropriation" but organized by the object classification is published monthly. In the St. Louis system, the function classification system is used by the school board as the controlling account classification.

The accounting system of St. Louis allows management control by location and by subject matter. The system also can be used in evaluating experimental programs.

At the moment, an experimental program involving 6,000 elementary students is underway. In this program, intensive instruction in vocabulary and reading comprehension is being administered. Some of the students are in an experimental group and others are in control groups. It is hoped that the intensive instruction will increase the reading ability of the experimental group. There are several ways that the accounting system and data processing system can be of general help in evaluating such a program: (a) by assisting in determining whether or not the goals have been reached (b) by tabulating the characteristics of teachers who actually were involved in the program, and (c) by providing data for researchers and teachers concerning the performances and characteristics of the pupils in each classroom.

The functions of the accounting and data processing systems that St. Louis has found useful in evaluating this experimental program closely resemble those described in earlier presentations at this conference and, therefore, may be among the most important functions of the overall management system.

THE LOS ANGELES CITY SCHOOLS, APPROACH TO PROGRAM ACCOUNTING

Based on Comments

by George E. McMullen

Today, this nation is engaged in a debate over the aims and purposes of education. Most recent publications do not advocate less public education or funds for it but, rather, ask for an examination of its purposes and how we expect to achieve those purposes. Many of these criticisms do not give direction to the search for better public education or point the way to a new concept of education.

Unfortunately, what sometimes happens is that decisions regarding education are made via the financial lever. Programs are accepted when they are financed and rejected when there is lack of financing. Value judgments are being made by fiscal officers; hopefully, in the near future this state of affairs will not prevail.

Turning to the Los Angeles City Schools, we find that to aid the school board in decision-making, the budget document is divided into two major parts. Part A contains all the growth items, progressive salary advances, and so forth. Part B contains recommendations that have been mandated by law since the board's last meeting on budgetary matters and those items which are urgently required for the operation of the school system.

The criteria for establishing the budget framework are that it must be (a) easily understood by the public and the board members, (b) compatible with current accounting practices, (c) provide information contributing to improved educational programs,

(d) focus attention on fiscal impact of policy decisions, (e) flexible in development to provide for change, (f) designed so that quantitative and qualitative measures can be applied, (g) implemented in phases moving from simple to complex over a number of years.

Appropriation summaries are presented to the board by fund; and all funds are broken down by major program, as in the following example, Figure 1, taken from Los Angeles City Schools Program Budget: Analysis of the 1968-69 Preliminary Budget.

Figure 1. Appropriation Summaries

All Funds, by Fund

- General
- Interfund Transfers
- Special Reserve
- Building
- Bond Interest and Redemption
- Retirement Tax
- Cafeteria
- Children's Center
- Development Centers for Handicapped Minors

All Funds, by Major Program

- Regular Elementary Classes
- Regular Secondary Classes
- Regular Adult Education Classes
- Regular College Classes
- Classes for the Exceptional Pupil
- School and Center Support Services
- Divisional and Area Support Services
- General Services
  - General Support
  - Fixed Costs and Adjustments

Salaries for major programs are listed by grade level, as in Figure 2 (from Los Angeles City Schools Program Budget: Analysis of the 1968-69 Preliminary Budget).

Figure 2. Teacher's Salaries for

Regular Elementary Classes (by Grade)

	Unified District	
Grade	Total Teachers' Salaries	Positions
Grade One		
Grade Two		

Figure 2. continued

Grade	Total Teachers' Salaries	Positions
Grade Three		
Grade Four		
Grade Five		
Grade Six		
Kindergarten		
Summer School		
TOTALS		

Note that this breakdown will yield the total teachers' salaries and the total number of positions by grade level under the major program heading. The same total funds are then divided by subject under the same major program. Figure 3 (from Los Angeles City Schools Program Budget: Analysis of the 1968-69 Preliminary Budget) shows the regular elementary classes as an example of a major program:

Figure 3. Teachers' Salaries for Regular Elementary Classes (by Subject)

	Unified District	
Subjects	Total Teachers' Salaries	Positions
Reading		
Language Arts		
Mathematics		
Social Studies		
Health and Physical Education		

Figure 3. continued

Unified District

Subjects	Total Teachers' Salaries	Positions
Art and Music		
Related Subjects		

The same general information also can be shown in matrix form for comparison purposes, as in Figure 4. As an example of the information that would be contained in a different program, in this instance, regular secondary classes, Figure 5 shows a comparison of subjects versus salaries and total positions for regular secondary classes. (Figures 4 and 5 are from the *Los Angeles City Schools Program Budget: Analysis of the 1968-69* Preliminary Budget. This source gives, of course, many other breakdowns of the expenditures and should be referred to for a complete view of the system's analytical capabilities.)

The Los Angeles program budgeting system is now in Phase One, and it is hoped that in time a more sophisticated system will be implemented.

Though what the future holds is still undetermined, it appears that one direction in which the district may move is toward major involvement of local administrators in the budgetary process. It may be possible to allow the building principal and his staff to have greater determination in allocating their own resources. Eventually, if the program budgeting system permits accounting by location and organization unit codes, then it will be possible for

Figure 4. Teachers' Salaries for Regular Elementary Classes

(by Grade and Subject)

								Unified District	
Grade	Reading	Language Arts	Math	Studies	Phys Ed.	Music	Subjects	Salaries	Positions
One	$								
Two									
Three									
Four									
Five									
Six									
Kindergarten									
Summer School									
TOTAL	$								

Figure 5. Teachers' Salaries for Regular Secondary Classes

(by Subject - Junior and Senior High)

			Unified District	
Subjects	Junior High Teachers' Sal.	Senior High Teachers' Sal.	Total Secondary Teachers' Sal.	Positions
Agriculture	$			
Art				
Business Education				
English				
Non-English Speaking				
Foreign Language				
Homemaking Education				
Industrial Education				
Mathematics				
Music				
Physical Education				
Science				
Social Studies				
Driver Education and Training				
Guidance (Group)				
Junior R. O. T. C.				
Library Practice				
School Service				
Study Hall				
Summer School				
TOTALS				

Figure 5. Teachers' Salaries for Regular Secondary Classes

(by Subject - Junior and Senior High)

			Unified District	
Subjects	Junior High Teachers' Sal.	Senior High Teachers' Sal.	Total Secondary Teachers' Sal.	Positions
Agriculture	$			
Art				
Business Education				
English				
Non-English Speaking				
Foreign Language				
Homemaking Education				
Industrial Education				
Mathematics				
Music				
Physical Education				
Science				
Social Studies				
Driver Education and Training				
Guidance (Group)				
Junior R. O. T. C.				
Library Practice				
School Service				
Study Hall				
Summer School				
TOTALS				

local decision-making, perhaps assisted by citizens of the local area, to take into account the total appropriations available and to make a division of these appropriations based on local needs. Hopefully, as the finance people are able to present the public and educators with a clearer outline of the costs of various educational programs, there will be a renewal of interest in the curriculum and an emphasis on research and development which will lead to better qualitative measures to supplement the quantitative measures now available.

THE CALIFORNIA SCHOOL BUSINESS OFFICIALS' APPROACH TO PROGRAM ACCOUNTING

Based on Comments

by Donald W. Luce

The material in this presentation represents the ideas and concepts of the accounting committee of a school business officials' organization. As such, it is limited to the accounting functions. Parts of this presentation originally were delivered at an annual conference of the school business officials in California in April, 1968. It is noted that public school accounting has been by function for 50 years or more, probably because education was considered to be a single program. Today it is clearly a multiple program, and we need new tools and new techniques.

There are threads that run through all the presentations which may assist us from an accounting point of view. One of these threads is object classification. While object classification is to be found in the accounting records of all school districts, in themselves, the objects mean little until they are related to what we want from the expenditure. It means little to record that so much was spent for certificated personnel salaries. But when this expenditure is related to a program designed, for example, to raise the reading levels of a thousand children at a certain grade level, it takes on real meaning.

As accountants, our group is not so sure that the accountants are the right people to become involved in determining what was accomplished. On the other hand, accountants are the people who should have something to contribute to developing a system that brings costs together. One other advantage of using object classification as a control is that this type of classification appears to have a finite number of elements within it. These are not fixed; but, at any given time, they represent some finite number. On the other hand, programs are almost infinite in number. But as programs are developed, a simple coding system which meets the needs of a school district can be developed. Budgeting really starts when we first become aware of a problem--when the need for helping a particular group of students is recognized. After the program has been implemented, there comes the problem of evaluation.

At the conference in April, 1968, the following chart of expenditure accounts was presented to the group:

* * * *

Suggested Chart of Expenditure Accounts for California School Districts

The Account Classifications indicated are summary accounts that are suggested as required reporting areas for official budgets and other state reports. The 100 category denotes certificated salaries. The 200 category denotes classified salaries. The three digits in each account classification allow for nine main sub-accounts. By expansion to four or five digits, provision can be made for as many sub-accounts as may be required by any district. With the use of five digits, this code pattern could be very closely related to the study contracted for by the State Department of Education. The main difference is that this grouping places teachers and related direct teaching service first in each category. It should be remembered that this is strictly the object portion of the expenditure code. Types of service, such as "Teacher of Mentally Retarded" or "Civic Center Custodian," would be designated by a program code in addition to this object code.

Account Code	Account Title
100	Certificated Salaries
110	Teachers' Salaries (Includes Resource Teachers, Reading Specialists, Certificated Aides, Tutors, etc.)
120	Principals' Salaries (Includes Vice Prin., Deans, etc.)
130	Supervisors' Salaries (Includes Coordinators, Directors, Consultants, and Supervisors of specific areas of curriculum or instructional program.)
140	Librarians' Salaries
150	Guidance and Welfare and Attendance Consultants' Salaries (Includes Social Workers, and all certificated personnel doing pupil personnel work; Psychologists and Psychometrists; Counselors)
160	Nurses' and Physicians' Salaries, and Other Certificated Salaries of Health Program
170	Superintendents', Deputy and Assistant Superintendents' Salaries
180	Other Certificated Salaries of District Administrative Offices (Includes Administrative Assistants, Directors of Personnel Serivces, etc.)
190	Other Certificated Salaries
200	Classified Salaries
210	Teaching Aides and other classified salaries for direct teaching assistance or pupil service (Includes Tutors, Teaching Assistants, Readers for blind, Noontime Supervisors, Classified Health Personnel, etc.)
220	School Clerical Salaries (Includes Secretaries, Attendance Clerks, Library Clerks, etc.)
230	Custodians', Matrons', Gardeners', Painters', and other classified salaries for operation, maintenance, and repair of equipment, buildings, and grounds
240	School Lunch Employees' Salaries

250 Salaries of Drivers, Mechanics, and related employee assignments for upkeep and operation of district-owned vehicles used for transporting students. (Includes Bus Operators, Field Coordinators, Gasoline Pump Attendants, etc.)

260 Salaries of Warehousemen, Deliverymen, Truck Drivers, and other personnel involved in the operation of a stores system

270 Classified Salaries of District Administrative and Clerical Personnel. (Includes Governing Board Members, as well as Business Managers, Controllers, Directors, Accountants, Computer Operators, Secretaries, Clerks, etc.)

280 Other Classified Salaries of District Service Personnel

290 Other Classified Salaries

300 Employee Benefits, Travel and Conference Expense and Miscellaneous Employee Reimbursements

310 State Teachers' Retirement System Annuity Fund

320 State Teachers' Retirement System Permanent Fund

330 State Employees' Retirement System

340 Old Age and Survivors Insurance

350 Health and Welfare Plans (Includes Group Life Insurance)

360 Workmen's Compensation Insurance

370 Travel and Conference Expense

380 Books, Fees, and Other Costs for Employee Professional Advancement (Includes "6875" Grant Reimbursements, fees for approved courses for both certificated and classified personnel, etc.)

390 Other Miscellaneous Employee Expenses and Reimbursements (Includes cost of replacing broken glasses or clothing, etc.)

400 Books, Supplies and Other Expenses

410 Textbooks (In accordance with State requirement)

420 Other Books (In accordance with State requirement; includes library books)

- 430 Classroom and School Office Supplies and Expense
- 440 Custodial, Gardening, Maintenance, and Other Supplies and Expense for Operation, Repair, and Upkeep of Equipment, Buildings, and Grounds
- 450 School Lunch Supplies and Expense (Includes food)
- 460 Supplies and Expense for Operation, Repair, and Upkeep of Vehicles
- 470 Medical, First-Aid, and Other Health Supplies and Expense
- 480 District Office and Business Supplies and Expense
- 490 Other Supplies and Expense

500 Services, Rentals, Leases, Insurance, Utilities, Housekeeping, and Other Contracted and Operating Expenses

- 510 Services of Consultants, Lecturers, and others for direct assistance to teachers, pupils, or the curriculum or health program. (Includes WASC reports, testing service, etc.)
- 520 Rental or Lease of Equipment, Sites, Buildings, and Other Facilities
- 530 Replacement of Equipment
- 540 Insurance
- 550 Utilities and Housekeeping Services (Includes water, fuel, light, power, telephone, garbage disposal, laundry, and drycleaning, etc.)
- 560 Transportation Contracts, Rentals, and Payments (includes payments to contractors, common carriers, other school district, in lieu of transportation payments, etc.)
- 570 Legal Expenses (Includes assessments, judgments, lawyers' fees, election costs, etc.)
- 580 Other Services and Expense for Administrative, District-wide Operation (Includes audits, surveys, appraisals, advertising, bond sale costs, etc.)

600 New Equipment, Sites, Buildings, and Other Facilities (Formerly Capital Outlay)

- 610 Books for New or Expanded Libraries

- 620 New Equipment
- 630 New Sites and Improvement of Sites
- 640 New Buildings and Improvement of Buildings
- 650 Other New Facilities

700 Other Outgo

- 710 Debt Service (includes interest and redemption of bonds, loan interest, etc.)
- 730 Outgoing Transfers (Includes repayments of State and public school building fund apportionments, tuition transfers, and interfund transfers, to other districts, etc.)

800 (Income Accounts)

900 (General Ledger Accounts - Assets, Liabilities, Reserves, Surplus)

* * * *

This chart of accounts, while it has certain advantages, may be criticized on one or two points: some of the benefits that arelisted probably should be distributed into the same categories as the salary. However, in California, certain override taxes must be levied to support some of these benefit programs; and for this reason and no other, they must be accounted for separately. For example, separate override tax levies are used to finance the retirement of certificated and classified personnel. So, as a matter of practical importance, in California at least, these figures must be kept separate.

A THREE-DIMENSIONAL PROGRAM ACCOUNT CLASSIFICATION SYSTEM FOR PUBLIC SCHOOLS

by Erick L. Lindman

Recent interest in program budgeting presents an opportunity to improve the public school accounting system which has evolved since the turn of the century. The system was established when public schools offered for all students a single program with few, if any, auxiliary services. Since then, school programs have become complex and varied; and the single-dimension accounting system, even with its amendments and additions, is hopelessly inadequate. Its inadequacy is especially noticeable when school administrators attempt to apply the concepts of program planning and budgeting to school systems.

Indeed, the key step to effective program budgeting is the development of a program-oriented expenditure classification system for public schools. To accomplish this undertaking, there must first be sufficient consensus concerning the proposed programs so that the U.S. Office of Education can establish account classifications for them in its accounting guide for public schools.

This paper reviews briefly some of the weaknesses in the present system and suggests a three-dimentional expenditure classification system to replace it.

The Present System

The minimum function-object account classification system recommended by the U.S. Office of Education for public schools included the following major categories:

(1) Administration
(2) Instruction
(3) Attendance and Health Services
(4) Pupil Transportation
(5) Operation of Plant
(6) Maintenance of Plant
(7) Fixed Charges
(8) Food Services
(9) Community Services
(10) Capital Outlay
(11) Debt Services
(12) Transfer Accounts

This list contains many inconsistencies that tend to obscure essential information about public school expenditures. The list is intended to be a function-object breakdown of school expenditures. Although one can accept as functions such items as administration, instruction, operation of plant, maintenance of plant, etc., the item classified community services is a different kind of item. It is neither a function nor an object. Instead, it identifies a clientele other than school children and describes a type of service. Moreover, expenditures in this item can be classified quite properly under the other function-object categories such as administration, operation of plant, etc. When a client-oriented item is included in a list of function-object items, confusion is inevitable.

Pupil transportation is another item which has special characteristics making it inappropriate for a function-object classification system. Often in computing the per-pupil cost of education, the cost of pupil transportation is omitted to make unit costs more comparable. Like community services this item can be allocated to the other functional categories, such as administration operation and maintenance of plant, etc.

To illustrate the basic inconsistency of including pupil transportation in the function-object classification system, one need only ask the question: Should the cost of insurance for school buses be included under pupil transportation or under fixed charges, where all other insurance costs are classified?

In response to this question, the U.S. Office of Education was influenced by the fact that most states provide aid to local school systems for pupil transportation. For this reason, it is necessary to know the total cost of pupil transportation, and the decision was made to include the cost of insurance for school buses under pupil transportation and not under fixed charges. It was not so important to know the total amount spent for insurance; and, if needed, these data can be obtained by a special tabulation.

The cost of pupil transportation is usually excluded from comparative studies of current expenditures per pupil and is often reimbursed in whole or in part from state funds. Moreover, the expenditures for pupil transportation can be classified appropriately under other items of the function-object classification system. The inclusion of this item in the function-object list creates confusion.

School lunch service is an illustration of another item that causes more than its share of confusion. Normally, this item is only a small part of the actual outlay for school lunches since it includes only the taxpayers' contribution. Receipts from the federal government usually are included in this expenditure, but receipts from the sale of lunches are excluded. The total expenditure for school lunches indicating the size of the program is not shown. Moreover, the federal contribution is not readily apparent. Yet, this is the kind of information the public is interested in.

These illustrations of inadequacies in the basic account classification system for public schools indicate why the system is unsatisfactory for program budgeting purposes. To provide a satisfactory system, it is necessary to classify school expenditures in a more meaningful and logically consistent way. The proposed three-dimensional system is designed to achieve this purpose.

The Type-of-School Dimension

School systems differ greatly in the types of schools maintained; and no comparative cost study or program planning process can be effective without information concerning this dimension, including the number and types of schools maintained and the amounts spent for each type. For this purpose, it is proposed that the current expenditures of public schools can be classified into the following type-of-school categories:

(1) Prekindergarten
(2) Elementary Schools
(3) Junior High Schools
(4) Senior High Schools
(5) Adult or Evening Schools
(6) Summer Schools
(7) Special Schools
(8) Community Services

By dividing the total amount expended by a school system among these eight client-oriented categories, it is possible to make comparisons with similar cost breakdowns for prior years or for other school systems and to present to the public an accurate picture of amounts spent for various groups served.

It will be noted that the only item taken from the function-object account classification list is community services. Other items in the type-of-school dimensions have been used for analytical purposes for many years but in an unsystematic fashion. Valid statistics concerning amounts spent for summer schools and adult schools are difficult to obtain. The categories in this dimension need to be defined more precisely and incorporated into state and local school accounting procedures.

The Function-object Dimension

There are many advantages in retaining the well-established function-object account classification, provided appropriate changes are made. Such items as community services, pupil transportation, and cafeteria service are not included in this dimension.

It is proposed that this dimension include the following major categories:

Instruction

(1) Principals' and Supervisors' Salaries
(2) Classroom Teachers' Salaries
(3) Other Professional Salaries
(4) Clerical and Paraprofessional Salaries
(5) Books
(6) Instructional Supplies
(7) Instructional Equipment
(8) Other Costs of Instruction

Support Services

(1) Administration
(2) Operation of Plant
(3) Maintenance of Plant
(4) Pupil Transportation
(5) Other Support Services
(6) Fixed Charges

In this list, health services, food services, and community services are included under other support services. These items, in addition to pupil transportation, are also included in the scope-of-services dimension. Transfers, debt service, and capital outlays are excluded from this list; they are shown in the fiscal summary.

This dimension indicates different amounts spent for the functions and objects in the school budget. Not only does this cost breakdown preserve historical continuity, but it also provides analytical information concerning each program identified in the type-of-school dimension. The function-object account classification becomes more meaningful when combined with the other two dimensions.

The major subcategories listed in this dimension follow current practice rather closely. Probably some changes in the subcategories under instruction are needed. Pupil guidance and library services need to be identified along with expenditures for educational TV and computer-assisted instruction. These subcategories are included under the broad category of instruction.

The Scope-of-Service Dimension

Public school revenues come from the state and the federal government as well as from local tax sources. In this respect, program planning and budgeting for public schools differ fundamentally from federal departments. Moreover, the actual amounts contributed by the state and by the federal government are affected by the types of programs maintained by the school district. For this reason, techniques used in federal departments are not directly applicable to public schools. Effective program planning and budgeting for public schools must be based upon adequate analyses of potential income from state and federal sources restricted to specific programs.

In addition to describing the scope of service offered, this dimension is intended to clarify, for the purpose of local school program planning, the effects of categorical aids from state and federal sources and, of equal importance, to provide essential information for state legislators and United States Congressmen so that they may see more clearly the effects of their appropriations upon local school operations.

The proposed scope-of-service account classification system includes the following major categories:

(1) The Basic Program
(2) Vocational Education
(3) Special Education
(4) Compensatory Education
(5) Health Services
(6) Pupil Transportation
(7) Lunch Program
(8) Other Supplementary Programs

Most of these programs are related to sources of income. The basic program in most states is related to income to support the foundation program. One of the purposes of the scope-of-service dimension is to clarify this relationship. Hopefully, segregation of expenditures for the basic program will clarify for legislators amounts needed for the jointly financed public school foundation program. For local boards of education, this account classification will show the amount and purpose of local funds contributed to supplement the state foundation program.

Categorical aid for vocational education has been provided by the federal government since enactment of the Smith-Hughes Act in 1917. It is not likely that this type of aid will be discontinued in the near future. In recent years the federal government has accepted greater responsibility for full employment which portends increasing federal interest in vocational education. For this reason, a precisely defined account classification for vocational education is needed so that its cost and federal contributions to it can be determined accurately.

Nearly every state provides categorical aid to local school districts to help meet the cost of educating children who are handicapped or have special educational needs. The state aid is usually intended to cover the excess cost of these programs--excess cost being defined as the difference between the per-pupil cost of the special program and the per-pupil cost of the basic program. In order to determine the appropriate state contribution, it is necessary to know the amounts expended in the first and third categories of the income-related dimension. Without this dimension, confusion and misunderstanding concerning the financing of special education is inevitable.

The recently enacted federal program for compensatory education for disadvantaged children provides a substantial amount of money each year and is likely to continue for many years. For this reason, it is necessary to develop a uniform method for computing the cost of compensatory education. This sort of computing method is necessary not only to inform the United States Congress but also to show local school boards the total cost of compensatory education, the federal contribution, and the net cost to local taxpayers.

In order to equalize school tax burdens, states generally provide categorical aid for pupil transportation. For this reason, pupil transportation is included in the scope-of-service dimension. It is the only item which occurs in the same form in two different dimensions. Both the local board of education and the state legislature need to know how much is spent for pupil transportation and how much the state is contributing for this purpose.

Similarly, the school lunch program is included in the income-related dimension to show its total cost and sources of income. Under present accounting procedures, recommended by the U.S. Office of Education, accurate information concerning total amounts expended for lunches is not recorded in school fiscal reports. The present practice of including among the function-object items an amount for school lunches that is not the total cost but the amount contributed from tax sources is unnecessarily confusing.

Finally, an item for other programs is provided. In California and a number of states, this item includes driver education. Developmental programs such as those provided for in Title III of the Elementary and Secondary Education Act of 1965 and in the National Defense Education Act are also included in this category. While these programs usually involve relatively small sums of money, they attract attention because they are innovative and are often federally supported. Although grants for this purpose may be discontinued in the near future, efforts to find new ways to educate children in schools are expected to continue.

Displays and Report Forms

Using these three dimensions, one can prepare some very informative reports. For each type of school maintained by a school district, a matrix can be prepared showing function-object categories vertically at the left of the page and scope-of-service categories across the page. Below the total for each scope-of-service category, the income earned by programs in that category can be shown so that the net cost to unrestricted funds is indicated for each category.

Another very informative matrix shows the type-of-school categories vertically at the left of the page and the scope-of-service categories across the top of the page. This display shows the variety of services provided for each type of school.

Table I relates expenditures to income sources. It is an essential planning exhibit for each school board and indicates how local unrestricted funds are actually used and how the fiscal condition of the school district would be affected by eliminating or reducing any of the "aided" programs.

Moreover, the format of this table, using statewide totals, provides essential information for the state legislature and Congress. In this table, the relationship between amount appropriated to aid special programs is related directly to the cost of these programs.

The fiscal summary emphasizes that outgoing transfers, debt service expenditures, and operating resources are not classified by the three-dimensional system. They are used to show the condition of the general fund and are reported both in the budget and

Table I. Scope of Program and Applicable Income: All Schools

	Basic Program	Voc. Educ.	Spec. Educ.	Comp. Educ.	Health Services	Pupil Transp.	Lunch Program	Other Programs
Expenditures								
Instruction								
Support Services								
Total Expenditures								
Applicable Income								
Federal Aids		X		X			X	?
State Aids		X	X			X		?
State-Local Found. Prog.	X							?
Other (Non-local Tax)				X			X	?
Total Applicable Inc.								
Net Cost to Unrestricted Income								

in the annual report as single, unclassified items. Only the Program Expenditures are classified according to the suggested three-dimensional system.

This fiscal summary information and the information in Table I indicate the types of analyses that can be made using a three-dimensional approach to the classification of public school expenditures if one of the dimensions is based on programs identified and aided by state legislatures and Congress. However, only these aided programs that are substantial and continuing have been identified. Small and temporary programs have been combined into a single Other Programs category.

The items suggested for the three dimensions represent broad categories, and they will need to be subdivided to give additional information. For example, using these subdivisions, it should be possible to segregate general fund expenditures for capital outlays and equipment replacement. Possibly a category for contracted services is needed. Expenditures for teachers' salaries could be classified according to teaching assignment.

This approach to program accounting assumes that some categorical aids will continue and perhaps expand and that public school program budgeting will be concerned increasingly with income-related programs. Hopefully, if the number of such programs established in the accounting system is limited, their excessive proliferation can be avoided.

CONTRASTS, SIMILARITIES, AND PROBLEMS IN PROGRAM ACCOUNTING FOR PUBLIC SCHOOLS

Based on Comments by John W. Buckley

I am not really an expert in the field of education, but I will try to apply some accounting knowledge to what we talked about yesterday.

In light of yesterday's presentation, I am somewhat uncertain about what a program is. A clear definition is needed if we are to make progress in this subject area. I would like to refer to Dr. Lichtenberger's basic question: What _is it_ that we are really trying to do? It seems to me that if we turn this basic question around, we would define a program. That is, if we ask ourselves what _it is_ that we are really trying to do and if we answer that question, then we can begin to separate programs from nonprograms. I suggest that what we would come up with is something that really defines programs in terms of answering Dr. Lichtenberger's question. We can either be rather general or very specific. I will come back to the question of specificity in a moment.

Obviously, one of the goals we are trying to achieve is to educate. Perhaps another is to promote the health of the students. Another may be to provide recreation or sports. These are programs. Some of these are mandatory. Some of these are optional. It seems that in reporting, it is quite important to separate optional and mandatory programs because of discretion in the allocation of funds for optional programs. For example, the Los Angeles School District curtailed its elementary music education in 1965. This was an optional program. They could either offer music education or use their resources in other ways. But within the mandatory classification, we can also place more or less emphasis on some programs vis-à-vis others.

In addition to basic programs, there are also some facilitating or enabling functions. These would include such services as administration, plant operation, maintenance, etc. Administration, for example, is not a program because we are not in the business of hiring and training administrators. All of these enabling functions exist for the purpose of supporting programs. But they are not programs.

I think that we have to define a program as something that has both elements of what we term cost-utility or cost-benefit analysis. There are no benefits per se in administration; it is therefore not a program. A program must have both of these ingredients to qualify as such in the classical sense of the word. We must have outputs, and these outputs must be measurable. If we cannot measure the outputs, there is no use defining a program. There is no use in listing a program for English education if we cannot measure the output in English education. I am not talking here about qualitative measurement because ultimately in an operating system you have to get down to quantitative measurement. Unless you are going to put some type of score on English grades and so forth, how are you going to measure operating effectiveness in education?

In cost accounting for programs and functions, we separate direct costs (those which can be traced 100 percent to each of these areas) from indirect costs which must be allocated on some approved basis. This stresses the importance of distinguishing between direct and indirect costs. So, what we have is a model for aggregating and allocating costs as shown below:

Figure 1. Cost Accounting Model

	Programs					Functions			
	Mandatory			Optional					Total
	A	B	C	D	E	F	G	H	
Direct Costs	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Allocate Functions to Programs*									
Allocate H	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(xxx)	xxx
" " G	xxx	xxx	xxx	xxx	xxx	xxx	(xxx)	xxx	xxx
" " F	xxx	xxx	xxx	xxx	xxx	(xxx)	xxx	xxx	xxx
Programs Total	xxx	xxx	xxx	xxx	xxx	-	-	-	xxx
Functions						xxx	xxx	xxx	

*Simultaneous algebraic equations provide the basis for allocating functions to other functions as well as to programs.

This model enables the administrator to arrive at the marginal and full cost of each program and function. This information is vital to decisions relating to expanding or reducing programs or functions, as well as to knowing the cost of supporting functions relative to each program.

In order to use this model, we must separate direct from indirect costs because if we do not do so, we have a shadow of preciseness that does not exist. The school board should realize, of course, that costs of an overhead or indirect type have less preciseness in costing a particular program than direct costs. One can get a quite different total simply by changing the basis of allocation; so, I am suggesting that some thought be given to approved allocation bases for educational administration. This cost accounting foundation is fundamental to the development of programmed budgeting and accounting.

I don't think that infinite allocation is reasonable. We are dealing in the realm of reasonableness. For example, it may not be feasible to try to allocate the cost of transportation to a subject. Students are not transported for the purpose of attending an English class.

In response to a question on accounting methodology, I should state that accounting operates on the double entry system, whether it be on a cash or accrual basis. For every event we have a transaction involving a debit and a credit. Two accounts, at least, are involved. These characteristics are rudimentary. Today we are getting into advanced systems in which information is needed for a variety of different purposes, but we have to retain the basic duality concept in order to retain control in the system.

We start with a chart of accounts. This chart is a list of all approved accounts. For data processing purposes, it is useful to number or code these accounts. In a chart of accounts, object classification is used. For reporting purposes, it is often useful to report on a functional or program basis; and this involves a rearrangement of some basic data. In a data-processing system, it is possible to have the advantages of primary and functional classification simultaneously. For example, if we pay $500 in salary to an instructor of English at the high school level, we might want information on all of the following accounts:

Cash
Salaries (or a subaccount thereof)
Curriculum Area - English
Level: 11th Grade
Fund: Source or Fiscal Year
Regular or Evening Session

Now, we only have one credit event, i.e., Cr. cash $500; and to maintain system balance, we can only have one offsetting control entry, e.g.:

Dr.	Salaries	$500
Cr.	Cash	$500

This situation does not prevent us from posting this event to as many other information accounts as we wish. But we must use two accounts for control purposes; the remainder we may refer to as memorandum entries.

Control Entry

Dr.	Salaries	$500
Cr.	Cash	$500

Memorandum Entries

Dr.	Curriculum Area: English	$500
Dr.	Level 11th Grade	$500
Dr.	Fund: Source or Fiscal Year	$500
Dr.	Regular or Evening Session	$500

By using this system, we have the best of both worlds, systems balance through the control entry and useful management information through the memorandum entry.

One cannot have control where one has inequality. This statement is the fundamental principle of accounting; so, one must select a set of accounts that brings about control; and the rest is memo information.

I wish to make two other points. First, we can develop information systems. We can also develop misinformation systems, and the concept of the misinformation system is just as important as that of the information system. One of the qualities of a misinformation system is a pretense of preciseness; we try to produce information in such detail and with such apparent preciseness to the nearest dollar and cent that we give the impression that we have God's own system of accounting operating for us, which is not true. I think that if we try to keep in mind at all times the qualities of direct and indirect cost, we will avoid most of the problems involved in misinformation systems. This concept was one of the problems that troubled me yesterday. In some of the very good programs that are being developed, the proration of costs simply is not being taken care of to the extent of some other aspects; and this sort of oversight tends to give some misinformation.

Second, we ought to separate the subject of programs in terms of its planning function and its control function. In other words, we can use a program budget for planning purposes. We also can use it for actually controlling the system and reporting on it.

Perhaps people will tell me that once we use a program budget for planning, we will have to use it for control. If we use it for control, there will be pressure to use it for planning. These statements may be true; but I think that in designing a program budget, we must have both sides of the coin in effect. If we are going to devise a program budget that we are going to use for control purposes, we must contemplate whether or not it also will be used for planning purposes and for the allocation of resources to the system. In other words, if it is really a good device, which will be used both for allocation of resources *in* the system and *to* the system, we must ask ourselves, "How much control do we want to relinquish?" It seems to me that the more detail we have, the more control we lose. The more information we give out in little, precise categories, the more this information will be used to allocate resources to the system; the more it will be used for the control of resources within the system, the less freedom the administrator will have. In other words, I am making a plea for broad categories and programs and advocating that programs not be broken down to particular units of instruction, subject areas, and so forth.

SUMMARY OF DISCUSSION

by Charles A. Lipot

Following the presentations and discussions of the various approaches to program accounting, the conferees considered a number of issues in committees. No effort was made to record consensus but, rather, it was considered that identification and discussion of the major issues would best serve the purposes of the conference and the needs of practitioners in the field.

Too little experience in the area of program accounting has been gained to date in the public school systems of the nation to state definitively which approach or method is best. Many districts, however, have experimented with systems, have found them useful, and have modified and adapted them as needed. There was consensus that program accounting has merit for the efficient operation of school systems.

The participants generally agreed that there was great diversity in the needs of districts, large and small, rural and urban, a situation which tends to rule out a single system for all. As a result, throughout the conference there was a search for items where national uniformity would be applicable and useful. Identification of these items was thought to be of importance to all educators and, in particular, to the U. S. Office of Education. Accordingly, the following major issues were identified and discussed.

Issue 1 What is a program?

If we are going to adopt a form of program accounting for use in planning, budgeting, and evaluation, we first must identify what is meant by a program. It was generally agreed that since divergent views of what constitutes a program are developing, there is an urgent need to have a glossary of terms that can be useful both as a basis of agreement and as a point of departure for future discussions, research, and exposition. At the moment there is such diversity in terminology that even an arbitrarily chosen set of terms will do much to facilitate future work in this field.

The question at hand also hinges on agreement among practitioners concerning what orientation should be given to educational programs and activities. Basically, there are four possibilities. Programs can be (a) mission-oriented, (b) product-oriented, (c) process-oriented, or (d) service-oriented. The basic orientation chosen will affect the selection of programs within the overall concept of education. For example, the broad mission orientation often is used in long-range planning by large organizations, public and private. Private industry is, by and large, product oriented. The product is measurable in quantity and quality and is the source of income and reputation for the company.

Some businesses are process oriented; the treatment is the measurable entity. The assumption is that the treatment, properly or professionally administered, will produce the desired results. Process orientation is particularly useful where the inputs are not constant and where the output may lack uniformity. The service orientation is akin, and at times ancillary, to the process orientation, but it also can be regarded as a separate category.

Many questions concerning classification arose as the conferees discussed the appropriateness of regarding an item such as transportation as a program. Some considered that since transportation was not the prime function, mission, or goal of education, it should not be considered as a program but, rather, as a supporting service or activity. Others voiced the opinion that since transportation was a necessary service which could be accounted for in terms of personnel, equipment, and materials, it should be identified as a program and accounted for accordingly.

A possible clarification that should be considered is the time frame of reference. Those who view programs as planning and budgeting in long-range (five to ten years) terms tend to think of a program in terms of a broad mission or goal. Those who are relating programs to a single year's budget presentation to a school board think primarily in terms of education as a process. Those who are using programs as entities to be evaluated at the end of the year think in terms of products. Often the service orientation cuts across all three levels and is sometimes subservient to them.

One of the outcomes of this general area of discussion was a recommendation that the U. S. Office of Education undertake the publication of a glossary of terms that would assist individuals in focusing their thinking on concepts rather than on semantic arguments.

To help plan, budget, and evaluate the system, the individuals involved must make a concentrated effort to relate their overall views of education to the accounting structure.

Another recommendation concerning _Handbook II_ was that the U. S. Office of Education publish the Revised Handbook II in loose-leaf form. This idea was offered with the knowledge that as experience was gained changes would be needed. These changes could best be incorporated, nationwide, by means of deletions and/or insertions to a loose-leaf publication.

Issue 2 _What major dimensions or classification codes should be uniform throughout the United States?_

The second major issue discussed pertained to the concept of the dimensional views of the accounting process. This issue is closely allied to the first discussion of basic orientation. The concept of dimension embodies the idea that the whole may be viewed from more than one aspect. A key principle in this concept is that each dimension should be kept "pure"; that is, the categories or activities which are grouped together should be of the same type. Each dimension then represents a total view of the educational program from that aspect and will account for all funds. Much useful information may be developed if the accounting system is responsive to this concept.

As the discussions progressed and as account coding methods were outlined by the various speakers, it became obvious that about nine dimensions were being consistently used. The fact that practitioners have found these aspects necessary, meaningful, or useful makes their inclusion important. Small school districts may find that combinations of dimensions can be made. However, it will assist everyone to recognize the distinctions between them.

To illustrate the diversity of opinion and practice in this area, one need only look at the differences among the Philadelphia program classification approach, the Los Angeles approach, and the St. Louis approach. It is recognized that there are many other classification systems that were not considered by the conferees. If we can agree that there are some basic aspects from which to view our educational process, perhaps we can isolate these and then view the whold from each vantage point. Using this procedure, we may construct any combination of matrices, which should produce more definitive and/or comparative information without losing sight of the whole.

The following dimensions are readily identifiable in most of the systems:

1. Fund Dimension. All monies received or expended are accounted for by a Fund code, which often designates the fiscal or calendar year, or another accounting period, but also can be used to designate a General Fund, Building Fund, School Lunch Fund, Student Activity Fund, etc.

2. Type of Account Dimension. All monies accounted are classified in one of five major categories: Assets, Liabilities, Fund Balance, Revenue, or Expenditure.
3. Function Dimension. All monies budgeted for or expended are charged against a functional breakdown. This breakdown is illustrative of a number of possibilities and represents a significant reduction of items in the functional category. Following the discussions at this conference, a functional breakdown might show these major subheadings:
    a. Direct Teaching Service (containing all direct teaching functions)
    b. Instructional Support (containing all support for instruction, including principals' salaries, instructional material, and supplies)
    c. Student Services (containing all services directly for students)
    d. Plant Maintenance and Operation
    3. General Control (containing district administration and planning)
4. Object Dimension. All monies budgeted or expended can be charged to one of a series of object categories. Examples of these might include salaries for personal services, payments for contracted services, supplies and materials, capital outlay, and debt service.

5. Location Dimension. As an optional view, all monies budgeted or expended can be charged against locations as specifically as a district desires. Examples include subdistricts, buildings by number, departments, or even rooms.
6. Type of School or Client Dimension. All funds can be allocated or charged against grade levels, or grade spans in as much detail as desired. Whereas some districts are content to speak of elementary, secondary, and college level, others who wish more detail include each yearly grade level or even semester level.
7. Income-related Dimension. All funds, received from whatever source, can be related to the purposes for which they were supplied. Examples include local taxes for the support of the overall program, foundation or basic aid received from the state, and special grants received to support specific purposes, such as vocational education, compensatory education, and community services.
8. Curricular Dimension. All monies can be related to a subject or subject area, broken down in as much detail as desired. For example, some districts attempt to budget and account by subject area, even at the elementary level where it is assumed that the teacher will spend a given number of minutes each day covering a particular subject.

9. Time Dimension. All funds can be related to the time when the instruction is held--for instance, day or evening session, regular or summer session.

There appear to be a number of advantages in using this dimensional approach and the matrices which follow from it. One advantage is that it tends to obviate some of the conflicts discussed in the first issue. For example, we may accept the thought that a program can be defined, or at least identified, in terms of the dimensions or the selection of an appropriate matrix; that is, a matrix of the curricular and location dimensions could isolate the costs of secondary foreign language programs in a particular subdistrict of a large city school system. Another advantage of the dimensional approach is that it facilitates coding by keeping like items together.

During the discussion, questions arose regarding the fact that each program had to be assigned a separate code. Dr. Knesevich and others noted that programs are not fixed and may be infinite in number; therefore, the accounting system adopted should be flexible enough to furnish the data needed for various combinations. The use of "pure" dimensions, appropriately coded, should serve this purpose. An example of the use of the matrix technique follows:

	Object Dimension					
Functional Dimension	Salaries Personal	Service	Contracted Services	Supplies & Materials	Capital Outlay	Debt Services
Direct Teaching Service						
Instructional Support						
Student Services						
Plant Maintenance and Operation						
General Control						

The degree of detail desired can be left to the individual district, but the whole system of coding is more meaningful when all elements within each code are of the same type. The following comments were made relevant to this major issue: Recalling that an important facet of this issue is the concept of national uniformity, only those dimensions and subheadings thereof that are applicable to all types of districts should be included in any U. S. Office of Education manual or handbook. It must be further recognized that acceptance of major dimensions on a nationwide basis does not preclude the greater detail desired by some districts. Apropos to this discussion was the plea that the conferees take into account the small district without available electronic data processing equipment.

Once a decision has been made to adopt a dimensional approach and the desired dimensions have been selected, it is relatively easy to select a coding system that best fits the needs of the individual district.

In discussing several of the currently operative plans, it appeared that an 18- to 20-digit code system could supply almost any combination of information desired for either planning, budgeting, or evaluation.

According to the ideas presented by various participants, the coding might look something like this:

Fund Dimension - two digits
Type of Account Dimension - one digit
Function Dimension - three digits
Location Dimension - two or three digits, depending on specificity desired.
Type of School Grade Level or Client Dimension - two digits
Income-related Dimension - two digits
Curricular Dimension - two digits
Time Dimension - two digits

No combination was presented during the conference that could not be quickly programmed for retrieval if this or a similar coding plan were adopted.

The conferees agreed that while some standardization is needed in order to provide comparability studies, it is also important that each district tailor its coding system to best fit its individual needs.

Issue 3 Which dimension(s) should be selected for appropriation and control purposes in the annual budget?

If expenditure classification systems include as many as nine dimensions, it is obvious that they cannot all be used for appropriation and control purposes in a legal sense. In many cases, under present state laws, appropriation and control are based upon fund and function dimensions.

Mr. Luce advanced a convincing argument in favor of using the object dimension as a control. In retrospect, this point of view seems feasible since it also meets the legal requirements in some states. However, in the discussion it was pointed out that use of the object dimension as a control may impose arbitrary limitations on the use of funds. For example, where the Function dimension is used as a control, there is flexibility regarding how budgeted funds may be spent within that functional area.

Issue 4 Should there be a breakdown, by grade level in the Type-of-School Dimension?

While many of the conferees agreed that there should be a dimension that accounts for grade levels, there was no general agreement on how detailed this breakdown should be. It was pointed out that in many rural schools and larger non-graded elementary schools, grade level grouping are flexible. Accordingly, it was considered that the degree of detail should be left to the individual school districts. It was recognized that states would have an interest in this type of information, too, and often would make the decision affecting districts in their respective jurisdictions. At the federal level, it appears that satisfactory information may be extracted from state reports as long as they identify grade levels or grade span in some way.

Issue 5 Should the functional category of Instruction, including principals' salaries, be retained?

It was generally agreed, as discussed earlier, that a functional category or dimension was useful and should be retained. There was considerable discussion regarding the content of the current broad category of Instruction. Many of the participants believed that the salaries of principals and other administrators should not be included under this heading.

Dr. Knesevich remarked that to leave this item under Instruction is to perpetuate a myth. Other conferees agreed that the public and school boards have been wanting to examine this large item in greater detail.

Agreement regarding the transfer of principals' salaries was not unanimous. Some members argued for retention of this item in Instruction and gave the rationale that the principals' main task is an educative one. This group was not in the majority.

During this dialogue, the itemized functional breakdown referred to in Issue 2 and Appendix A was discussed. Principals' salaries were removed from the category Direct Teaching Service and placed in the category of Instructional Support. This change serves two distinct purposes. It separates support items from teaching, for purposes of analysis, but retains historical continuity in that adding the newly proposed Direct Teaching Service to the proposed Instructional Support dimension produces an amount comparable to the present category of Instruction.

Many of the conferees believed that a category called Student Services would be both necessary and useful in order to account for the many services, which are not primarily instruction, for students. There was considerable discussion regarding such items as library service, counseling, and coaching. The general tenor of the thinking was that counseling and library service should be classified under Student Services or Instructional Support.

Issue 6 Should the category "Fixed Charges" be continued?

In general, the conferees agreed that the charges against this item should be redistributed to the major categories in the dimensions selected. At present many of these charges are shown as Fringe benefits, Employee benefits, Social Security, District Contributions to Retirement, etc. While it may be necessary to have some means of totaling these charges for accounting purposes, discussion indicated that they are really an integral part of providing the service in question and, therefore, should be distributed to the applicable function in order to make any cost analysis truly meaningful.

For example, the district contribution to the state teachers' retirement fund on behalf of each teacher should be charged to Teaching Service and not to a nebulous, catch-all called Fixed Charges. If we were interested in the Function dimension, the charge would be made to the Classroom Teaching category. Appropriate coding can insure retrieval of this detail at any time, but meanwhile the costs of dimensional categories with all proper charges included are more meaningful.

Issue 7 To what extent should the accounting system reflect the categorically aided programs?

As Dr. Lichtenberger commented, a recommendation has been made to eleminate the reporting of net figures which tend to mask the details of operation. Discussion indicated that good management practice should permit the entire operation to be viewed in all three phases: planning, budgeting, and evaluation. For example, in the food service area, the total expenditure by function should be compared with income by source (including income from patrons) and with state and federal aid funds so that management may view the details of operation. To make this information available, the additional material thus gained may be used in the various dimensions to present an accurate picture of student-service operations.

Another view, however, assumes that the School Lunch Fund and the Student Activity Funds are not part of the General Fund of the school district. According to this view, these funds should be reported separately; and the General Fund should show only contributions or subsidies to these activities from tax sources.

Issue 8 Should the general fund accounting format include provisions for the handling of total amounts spent for student activities and food services?

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Another view, however, assumes that the School Lunch Fund and the Student Activity Funds are not part of the General Fund of the school district. According to this view, these funds should be reported separately; and the General Fund should show only contributions or subsidies to these activities from tax sources.

Issue 9 Should the unit cost by curriculum areas or specific subjects be determined by accounting procedures or by a cost analysis method?

Inherent in the discussion of this issue are questions concerning the need for specificity and the cost of collecting actual data. From the standpoint of a national uniformity, the importance of detailed data was questioned, particularly if they include prorated indirect costs. However, if curricular programs are going to receive reimbursable funds, it is important to relate all proper charges to the subject to which they apply.

Some districts account for curricular costs at the elementary level by assuming that each teacher spends daily the time mandated for each subject area. This information, in addition to average salaries for each grade level, makes possible the estimation of amounts spent for each subject area.

At the secondary level, where time and subject matter usually are more discreet, the question arises whether actual or average salaries should be used in developing cost analysis data. The salaries in question represent the major cost of curricular categories. Perhaps, as one member commented, we may be indicating a preciseness that actually does not exist by using detailed cost figures. The use of average salaries, for example, might yield more meaningful analytical data at lower cost. The discussants, however, commented that while information concerning the unit cost of each subject would be desirable, the elimination of an expensive science course solely because of cost would be unlikely.

Issue 10 Should more emphasis be placed on accounting by location?

One of the ideas that recurred in many of the presentations was the need, in both budgeting and expenditure control, to account for expenditures by location. It was apparent that this category will be an increasing requirement if decentralization procedures increase. The establishment of the school as a cost center has merit as a management control device. It tends to give the principal greater fiscal responsibility and management control. Obviously, there are some who would prefer to have the principal unencumbered by budgetary problems and free to be an educational leader. The tenor of the discussions regarding this issue indicated that the accounting system should permit the identification of location by providing a category or dimension, but it was recognized that not all school districts would use this dimension.

Issue 11 How should indirect costs be handled in a program accounting system?

Throughout the conference, the problem of arriving at true costs of either dimensional categories or programs stemming from them plagued the participants.

Many participants recognized the enormity of the task, and most agreed that it would be impractical to attempt a continuous distribution of indirect charges by accounting procedures. At the same time, it was recognized that there are instances in which indirect costs must be accounted for, e.g., in the case of reimbursable programs.

Lest there be a misunderstanding regarding the magnitude of this element, it must be remembered that Plant Maintenance and Operation and General Control account for almost 20 percent of the annual budget.

One conferee commented that while proration of indirect costs was important, it may not have a place in the budgetary process. Another commented that failure to properly allocate costs might lead to misinformation in a system that seems to be so very precise.

It was suggested that some programs might be treated as by-product manufacturing is handled in private industry. Under that system, only direct costs of the operation of a summer school would be charged to it, e.g., teachers' salaries and supplies for the specific program. Indirect costs, which would occur even if the summer school were not held, would be segregated for planning purposes.

The suggestion was made that allocation bases for prorating indirect costs be standardized; for example, maintenance might be allocated on the basis of total floor space required.

APPENDIX A

A SAMPLE BREAKDOWN OF THE FUNCTION DIMENSION

Based on the discussions, the following is an outline of a Function dimension employing five major categories. Each of these is shown with representative subheadings. The latter are not intended to be complete, but illustrative.

I. Direct Teaching Service
  - Classroom teaching
    - Regular teaching staff
    - Substitute teachers
  - Other direct instruction
    - Home (visiting) teaching
    - Driver training
    - T.V. teaching

II. Instructional Support
    - Principals' and school building administrators' salaries
    - Teacher supervisors
    - Library service
    - Curriculum development and assistance
    - Teacher aides to teachers
    - Clerical assistance to teachers
    - Paraprofessional assistance to teachers
  - Library services
  - Supplies and materials for instruction
    - Textbooks
    - Computer-assisted instruction

- Audio-visual instruction
- Other programmed instruction

III. Student Services

- Counseling service
- Student food service
- Student health service
- Pupil transportation
- Student activities service
- Attendance service
- Other student services

IV. Plant Maintenance and Operation

- Maintenance of buildings
- Maintenance of grounds
- Maintenance of equipment
- Utilities
- Supplies and materials

V. General Control

- District administration
  - School board
  - Superintendent's office
  - Business office operation
- Research and development
- Data processing
- Other

It should be noted that groups I and II are normally thought of as Direct Cost items for various instructional programs; and as such, expenditures would be charged directly to them. Groups III, IV, and V fall generally into the category of Indirect Cost items and would not normally be distributed to instructional programs or expenditure accounts until needed. At the end of the accounting period, these indirect costs would be prorated to other dimensions on some acceptable basis. For example, Plant Maintenance may be distributed on an area basis; Plant Operation may be distributed on a per-pupil in ADA basis; General Control may be distributed on a per-pupil in ADA basis, etc. While this proration may vary from district to district, some nationwide standardization would be helpful.

APPENDIX B

AN EXAMPLE OF A MATRIX OF THE FUNCTION AND THE INCOME-RELATED DIMENSION

In presenting a budget to the school board for adoption, it seems necessary to relate projected costs of operation to incomes from other sources in order to get a more meaningful picture of the local district contribution. Without this type of relationship the district's role often is distorted, and the benefit-cost relationship of a program to the community is obscured. One way to clarify this relationship is to compare the Function and the Income-related dimensions in matrix form.

An Expenditure Matrix: Function and the Income-related Dimension

Function Dimension	Basic Program	Vocational Educ.	Compen. Educ.	Special Educ.	Community Services	Other
1. Direct Teach. Service						
2. Instructional Support						
3. Student Services						
4. Plant Maint. & Operations						
5. General Control						
6. Total Expendrs.						
I1. Income, Federal						
I2. Income, State						
I3. Income, State-local Foundation						
I4. Income, Other						
I5. Total Outside Income						
Net Local Contribution Required[1]						

[1] Line 6 minus line 15